

# Computer-Driven Development of an in Silico Tool for Finding Selective Histone Deacetylase 1 Inhibitors

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**Table S1.** Experimental (Observed column) and predicted (Predicted column) activity pIC<sub>50</sub> for compounds used for developing the 3D-QSAR model. (Note: a) compounds included in the training set; b) compounds included in the tests set; (Note: \* compounds used for the decoys generation).

|    | Compounds                                                                                                           | Observed<br>IC <sub>50</sub> (μM) | Observed<br>PIC <sub>50</sub> | Predicted<br>pIC <sub>50</sub> | Note |
|----|---------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------|--------------------------------|------|
| 1  | <chem>C1CCN1Cc(cn2)cc(C#N)c2-c3ccc(cc3)C(=O)Nc4c(N)cccc4</chem><br>(Andrews and Gibson, et al., 2008)               | 0.01                              | 2.000                         | 1.830                          | a*   |
| 2  | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C#N)cc(cn3)CN4CCN(CC4)CC</chem><br>(Andrews and Gibson, et al., 2008)         | 0.01                              | 2.000                         | 1.880                          | a*   |
| 3  | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C#N)cc(cn3)CN4CCN(CC4)C(C)C</chem><br>(Andrews and Gibson, et al., 2008)      | 0.01                              | 2.000                         | 1.970                          | a*   |
| 4  | <chem>c1ccsc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem><br>(Methot and Chakravarty, et al., 2008)                   | 0.007                             | 2.155                         | 1.710                          | a*   |
| 5  | <chem>c1csc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem><br>(Methot and Chakravarty, et al., 2008)                    | 0.007                             | 2.155                         | 1.890                          | a*   |
| 6  | <chem>c1cccc1-c(c2)ccc(O)c2NC(=O)c3ccc(cc3)CNc4ccncc4</chem><br>(Kattar, et al., 2009)                              | 0.01                              | 2.000                         | 1.530                          | a*   |
| 7  | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CNc4ccncc4</chem><br>(Kattar, et al., 2009)                              | 0.01                              | 2.000                         | 1.580                          | b*   |
| 8  | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(C)c4ccncc4</chem><br>(Kattar, et al., 2009)                           | 0.01                              | 2.000                         | 2.020                          | a*   |
| 9  | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)                       | 0.008                             | 2.097                         | 1.790                          | b*   |
| 10 | <chem>s1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)                       | 0.004                             | 2.398                         | 2.130                          | a*   |
| 11 | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)                       | 0.008                             | 2.097                         | 2.250                          | a*   |
| 12 | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)                   | 0.008                             | 2.097                         | 2.070                          | a*   |
| 13 | <chem>C1NCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem><br>(Methot and Hamblett, et al., 2008)              | 0.008                             | 2.097                         | 1.930                          | b*   |
| 14 | <chem>C1NCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5ccsc5</chem><br>(Methot and Hamblett, et al., 2008)              | 0.01                              | 2.000                         | 2.060                          | a*   |
| 15 | <chem>C1CN(C(=O)C)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem><br>(Methot and Hamblett, et al., 2008)     | 0.009                             | 2.046                         | 2.090                          | b*   |
| 16 | <chem>C1CN(S(=O)(=O)C)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem><br>(Methot and Hamblett, et al., 2008) | 0.008                             | 2.097                         | 2.190                          | a*   |
| 17 | <chem>OCCN(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem><br>(Methot and Hamblett, et al., 2008)        | 0.006                             | 2.222                         | 2.140                          | a*   |
| 18 | <chem>CC(=O)N(C1)CCC12CCCN(C2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>                                            | 0.008                             | 2.097                         | 2.060                          | a*   |

|    |                                                                                                                           |       |        |        |    |
|----|---------------------------------------------------------------------------------------------------------------------------|-------|--------|--------|----|
|    | (Methot and Hamblett, et al., 2008)                                                                                       |       |        |        |    |
| 19 | <chem>C1NC(=O)NC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem><br>(Methot and Hamblett, et al., 2008)               | 0.007 | 2.155  | 2.280  | a* |
| 20 | <chem>C1OC(=O)NC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem><br>(Methot and Hamblett, et al., 2008)               | 0.008 | 2.097  | 2.130  | a* |
| 21 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CNC(=O)OCc3ccnc3</chem><br><b>Entinostat</b><br>(Li et al., 2015)                          | 0.273 | 0.564  | 0.410  | a  |
| 22 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CNc3nccc(n3)-c4ccnc4</chem><br><b>Mocetinostat</b><br>(Li et al., 2013)                    | 0.098 | 1.01   | 0.800  | a  |
| 23 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3ccccc3)C(=O)Nc4ccccc4</chem><br>(Siliphaivanh et al., 2007)                      | 0.041 | 1.387  | 1.320  | a  |
| 24 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3ccccc3)C#N)C(=O)Nc4cc(C#N)ccc4</chem><br>(Siliphaivanh et al., 2007)             | 0.034 | 1.469  | 1.280  | a* |
| 25 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3ccc(F)cc3)C(=O)Nc4ccc(F)cc4</chem><br>(Siliphaivanh et al., 2007)                | 0.063 | 1.201  | 1.350  | b  |
| 26 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3cc(F)ccc3)C(=O)Nc4cc(F)ccc4</chem><br>(Siliphaivanh et al., 2007)                | 0.056 | 1.252  | 1.210  | a  |
| 27 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3cc(OC)ccc3)C(=O)Nc4cc(OC)ccc4</chem><br>(Siliphaivanh et al., 2007)              | 0.035 | 1.456  | 1.380  | a* |
| 28 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3c(OC)cccc3)C(=O)Nc4cccc4OC</chem><br>(Siliphaivanh et al., 2007)                 | 0.047 | 1.328  | 1.320  | a  |
| 29 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc(cc3)cc(c34)OCCO4)C(=O)Nc(c5)ccc(c56)OCCO6</chem><br>(Siliphaivanh et al., 2007)  | 0.021 | 1.678  | 1.550  | a* |
| 30 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3cc(ccc3)N4CCOCC4)C(=O)Nc5c(ccc(c5)N6CCOCC6</chem><br>(Siliphaivanh et al., 2007) | 0.045 | 1.347  | 1.280  | a  |
| 31 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3cccc(c34)cccn4)C(=O)Nc5cccc(c56)cccn6</chem><br>(Siliphaivanh et al., 2007)      | 0.103 | 0.987  | 1.060  | b  |
| 32 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)N(C)c3ccccc3)C(=O)Nc4ccccc4</chem><br>(Siliphaivanh et al., 2007)                   | 0.196 | 0.708  | 0.790  | a  |
| 33 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)N(C)c3ccccc3)C(=O)N(C)c4ccccc4</chem><br>(Siliphaivanh et al., 2007)                | 7.195 | -0.857 | -0.810 | a  |
| 34 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)C(C(=O)NCc3ccccc3)C(=O)NCc4ccccc4</chem><br>(Siliphaivanh et al., 2007)                    | 0.199 | 0.701  | 0.630  | a  |

|    |                                                                                                                    |       |       |       |   |
|----|--------------------------------------------------------------------------------------------------------------------|-------|-------|-------|---|
| 35 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C(C(=O)NCCCC3CCCC3)C(=O)NCCCC4CCCC4</chem><br>4<br>(Siliphaivanh et al.,2007)        | 0.229 | 0.640 | 0.690 | a |
| 36 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C(F)(C(=O)Nc3cccc3)C(=O)Nc4cccc4</chem><br>(Siliphaivanh et al.,2007)                | 0.048 | 1.319 | 1.100 | a |
| 37 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C(O)(C(=O)Nc3cccc3)C(=O)Nc4cccc4</chem><br>(Siliphaivanh et al.,2007)                | 0.094 | 1.027 | 0.740 | b |
| 38 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C(C)(C(=O)Nc3cccc3)C(=O)Nc4cccc4</chem><br>(Siliphaivanh et al.,2007)                | 0.198 | 0.703 | 0.660 | a |
| 39 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CC(C(=O)Nc3cccc3)C(=O)Nc4cccc4</chem><br>(Siliphaivanh et al.,2007)                  | 0.047 | 1.328 | 0.600 | b |
| 40 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CC(C)(C(=O)Nc3cccc3)C(=O)Nc4cccc4</chem><br>(Siliphaivanh et al.,2007)               | 0.200 | 0.699 | 0.430 | b |
| 41 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)c(c3)c(=O)oc(c34)cc(cc4)OCCC</chem><br>(Abdizadeh et al., 2017)               | 0.87  | 0.060 | 0.270 | b |
| 42 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)c(c3)c(=O)oc(c34)cc(cc4)OCc5ccc(Br)cc5</chem><br>(Abdizadeh et al., 2017)     | 0.50  | 0.301 | 0.330 | a |
| 43 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)c(c3)c(=O)oc(c34)cc(cc4)OCc5ccc(cc5)OC</chem><br>(Abdizadeh et al., 2017)     | 0.71  | 0.149 | 0.100 | a |
| 44 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)c(c3)c(=O)oc(c34)cc(cc4)OCc5ccc(Cl)c(Cl)c5</chem><br>(Abdizadeh et al., 2017) | 0.47  | 0.328 | 0.330 | a |
| 45 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(C)CCN(C)C(=O)OCc3cccc3</chem><br>(Hamblett et al., 2007)                           | 0.963 | 0.016 | 0.070 | a |
| 46 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN(CC3)C(=O)OCc4cccc4</chem><br>(Hamblett et al., 2007)                           | 0.168 | 0.775 | 1.010 | a |
| 47 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN[C@H](C3)C</chem><br>(Hamblett et al., 2007)                                    | 0.435 | 0.362 | 0.520 | a |
| 48 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)OC(C)(C)C</chem><br>(Hamblett et al., 2007)                    | 0.242 | 0.616 | 0.930 | a |
| 49 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)OCc4cccc4</chem><br>(Hamblett et al., 2007)                    | 0.073 | 1.137 | 1.100 | b |
| 50 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@@H](C3)C)C(=O)OCc4cccc4</chem><br>(Hamblett et al., 2007)                   | 0.040 | 1.398 | 1.140 | a |
| 51 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(C3)CCN(C3(C)C)C(=O)OCc4cccc4</chem><br>(Hamblett et al., 2007)                     | 0.169 | 0.772 | 0.860 | a |
| 52 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3[C@H](C)CN([C@H](C3)C)C(=O)OCc4cccc4</chem><br>(Hamblett et al., 2007)             | 0.255 | 0.593 | 0.510 | a |

|    |                                                                                                         |       |       |       |   |
|----|---------------------------------------------------------------------------------------------------------|-------|-------|-------|---|
| 53 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C(C)C)C(=O)OCc4cccc4</chem><br>(Hamblett et al., 2007)     | 0.326 | 0.487 | 0.740 | a |
| 54 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(C3)CCN(C3(C)C)C(=O)OCc4cccc4</chem><br>(Hamblett et al., 2007)          | 0.077 | 1.114 | 0.830 | a |
| 55 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(C3)CCN(C3(C)C)S(=O)(=O)c4cccc4</chem><br>(Hamblett et al., 2007)        | 0.149 | 0.827 | 0.950 | b |
| 56 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)Nc4cccc4</chem><br>(Hamblett et al., 2007)          | 0.075 | 1.125 | 0.910 | b |
| 57 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)NCc4cccc4</chem><br>(Hamblett et al., 2007)         | 0.039 | 1.409 | 1.300 | a |
| 58 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)NCc4ccc(cc4)OC</chem><br>(Hamblett et al., 2007)    | 0.047 | 1.328 | 1.360 | a |
| 59 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)N[C@H](C)c4ccc4</chem><br>(Hamblett et al., 2007)   | 0.101 | 0.996 | 1.280 | a |
| 60 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)N[C@@H](C)c4cccc4</chem><br>(Hamblett et al., 2007) | 0.047 | 1.328 | 1.270 | b |
| 61 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)C)C(=O)NCCc4cccc4</chem><br>(Hamblett et al., 2007)        | 0.047 | 1.328 | 1.240 | a |
| 62 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC3)CC(N34)CCCC4</chem><br>(Hamblett et al., 2007)                      | 0.588 | 0.231 | 0.250 | a |
| 63 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC3)Cc(n34)ncc4-c5cccc5</chem><br>(Hamblett et al., 2007)               | 0.139 | 0.857 | 0.580 | a |
| 64 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC3)Cc(n34)ncc4Cc5cccc5</chem><br>(Hamblett et al., 2007)               | 0.222 | 0.654 | 0.460 | b |
| 65 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(C(C34)CC4)CCN3C(=O)OCc5cccc5</chem><br>(Hamblett et al., 2007)          | 0.140 | 0.854 | 1.050 | b |
| 66 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(c(c34)cccc4)CCN3C(=O)OCc5cccc5</chem><br>(Hamblett et al., 2007)        | 0.092 | 1.036 | 1.080 | b |
| 67 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)CCC</chem><br>(Hamblett et al., 2007) (Ref9)               | 0.304 | 0.517 | 0.600 | b |
| 68 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN([C@H](C3)CCCC</chem><br>(Hamblett et al., 2007) (Ref9)              | 0.301 | 0.521 | 0.440 | a |
| 69 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3[C@H](C)CN[C@H](C3)C</chem><br>(Hamblett et al., 2007)                  | 0.582 | 0.235 | 0.300 | a |
| 70 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(C3)CCNC3(C)C</chem><br>(Hamblett et al., 2007)                          | 0.529 | 0.277 | 0.600 | a |
| 71 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CC(C)NC(C3)C</chem><br>(Hamblett et al., 2007)                          | 0.821 | 0.086 | 0.400 | a |
| 72 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N3CCN(C(=O)OC(C)(C)C)C(C3)Cc4cccc4</chem>                                 | 0.352 | 0.453 | 0.600 | a |

|    |                                                                                                            |       |        |        |    |
|----|------------------------------------------------------------------------------------------------------------|-------|--------|--------|----|
|    | (Hamblett et al., 2007)                                                                                    |       |        |        |    |
| 73 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(C4)CN3</chem><br>(Hamblett et al., 2007)                            | 0.307 | 0.513  | 0.390  | b  |
| 74 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(C4)CN3C(=O)OC(C)(C)C</chem><br>(Hamblett et al., 2007)              | 0.189 | 0.724  | 0.940  | b  |
| 75 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(C4)CN3C(=O)OCc5ccccc5</chem><br>(Hamblett et al., 2007)             | 0.068 | 1.167  | 1.250  | a  |
| 76 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(C4)CN3Cc5ccccc5</chem><br>(Hamblett et al., 2007)                   | 0.235 | 0.629  | 0.390  | b  |
| 77 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(C4)CN3C(=O)CCc5ccccc5</chem><br>(Hamblett et al., 2007)             | 0.167 | 0.777  | 0.750  | a  |
| 78 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(CN3)CC4</chem><br>(Hamblett et al., 2007)                           | 0.405 | 0.393  | 0.590  | a  |
| 79 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(C4)CN3C(=O)OC(C)(C)C</chem><br>(Hamblett et al., 2007)              | 0.669 | 0.175  | 0.480  | a  |
| 80 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(CC4)CN3C(=O)OCc5ccccc5</chem><br>(Hamblett et al., 2007)            | 0.067 | 1.174  | 0.860  | b  |
| 81 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)C(CC4)CN3C(=O)OCc5ccccc5</chem><br>(Hamblett et al., 2007)            | 0.091 | 1.041  | 0.930  | a  |
| 82 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)CC(CC4)N3C(=O)OC(C)(C)C</chem><br>(Hamblett et al., 2007)             | 0.167 | 0.777  | 0.990  | b  |
| 83 | <chem>Nc1cccc1NC(=O)c2ccc(nc2)N(CC34)CC(CC4)N3C(=O)OCc5ccccc5</chem><br>(Hamblett et al., 2007)            | 0.082 | 1.086  | 1.110  | a  |
| 84 | <chem>Nc1cccc1NC(=O)c2ncccc2</chem><br>(Andrews and Stokes, et al., 2008)                                  | 2.455 | -0.390 | -0.310 | a  |
| 85 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3scn3</chem><br>(Andrews and Stokes, et al., 2008)                         | 0.123 | 0.910  | 0.650  | a  |
| 86 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)Cc4ccccc4</chem><br>(Andrews and Stokes, et al., 2008)             | 0.045 | 1.347  | 1.120  | a  |
| 87 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(C)CC3</chem><br>(Andrews and Stokes, et al., 2008)                     | 0.138 | 0.860  | 0.990  | b  |
| 88 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3ncc(s3)CN4CCCC4</chem><br>(Andrews and Stokes, et al., 2008)              | 0.022 | 1.658  | 1.570  | a* |
| 89 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3ncc(s3)CNCC</chem><br>(Andrews and Stokes, et al., 2008)                  | 0.038 | 1.420  | 1.450  | b  |
| 90 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3ncc(s3)CNCCC</chem><br>(Andrews and Stokes, et al., 2008)                 | 0.028 | 1.553  | 1.420  | a* |
| 91 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)CCC(=O)Nc4c(F)cccc4</chem><br>(Andrews and Stokes, et al., 2008)   | 0.068 | 1.167  | 1.050  | a  |
| 92 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)Cc4ccc(cc4)C(=O)N(C)C</chem><br>(Andrews and Stokes, et al., 2008) | 0.085 | 1.071  | 1.140  | a  |

|     |                                                                                                               |       |        |       |    |
|-----|---------------------------------------------------------------------------------------------------------------|-------|--------|-------|----|
| 93  | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)Cc4ccc(cc4)C(=O)NC5CC5</chem><br>(Andrews and Stokes, et al., 2008)   | 0.058 | 1.237  | 1.180 | a  |
| 94  | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)Cc4ccc(cc4)C(=O)NCC</chem><br>(Andrews and Stokes, et al., 2008)      | 0.035 | 1.456  | 1.130 | b* |
| 95  | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)Cc4ccc(cc4)C(=O)NC</chem><br>(Andrews and Stokes, et al., 2008)       | 0.031 | 1.509  | 1.150 | b* |
| 96  | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3c(C#N)cc(cn3)N</chem><br>(Andrews and Gibson, et al., 2008)                  | 0.012 | 1.921  | 1.670 | a* |
| 97  | <chem>C1CCN1Cc(cn2)cc(C)c2-c3ccc(cc3)C(=O)Nc4c(N)cccc4</chem><br>(Andrews and Gibson, et al., 2008)           | 0.021 | 1.678  | 1.660 | a* |
| 98  | <chem>C1CCN1Cc(cn2)cc(Cl)c2-c3ccc(cc3)C(=O)Nc4c(N)cccc4</chem><br>(Andrews and Gibson, et al., 2008)          | 0.019 | 1.721  | 1.620 | a* |
| 99  | <chem>C1CCN1Cc(cn2)cc(F)c2-c3ccc(cc3)C(=O)Nc4c(N)cccc4</chem><br>(Andrews and Gibson, et al., 2008)           | 0.05  | 1.301  | 1.410 | a  |
| 100 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C)cc(cn3)CN4CCN(CC4)CC</chem><br>(Andrews and Gibson, et al., 2008)     | 0.019 | 1.721  | 1.710 | a* |
| 101 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(Cl)cc(cn3)CN4CCN(CC4)CC</chem><br>(Andrews and Gibson, et al., 2008)    | 0.016 | 1.796  | 1.730 | a* |
| 102 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(F)cc(cn3)CN4CCN(CC4)CC</chem><br>(Andrews and Gibson, et al., 2008)     | 0.038 | 1.420  | 1.330 | a  |
| 103 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C)cc(cn3)CN4CCN(CC4)C(C)C</chem><br>(Andrews and Gibson, et al., 2008)  | 0.019 | 1.721  | 1.790 | a* |
| 104 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(Cl)cc(cn3)CN4CCN(CC4)C(C)C</chem><br>(Andrews and Gibson, et al., 2008) | 0.013 | 1.886  | 1.700 | a* |
| 105 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(F)cc(cn3)CN4CCN(CC4)C(C)C</chem><br>(Andrews and Gibson, et al., 2008)  | 0.033 | 1.481  | 1.250 | b* |
| 106 | <chem>s1cccc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)CN(CCO)Cc(c4)ccc(c45)OCO5</chem><br>(Hirata, et al., 2012)           | 0.06  | 1.222  | 1.410 | a  |
| 107 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CN(CCO)Cc(c3)ccc(c34)OCO4</chem><br>(Hirata, et al., 2012)                      | 1.17  | -0.068 | 0.250 | a  |
| 108 | <chem>s1cccc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)CNC(=O)CC</chem><br>(Hirata, et al., 2012)                           | 0.04  | 1.398  | 1.500 | a  |
| 109 | <chem>s1cccc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)CNC(=O)N4CCOCC4</chem><br>(Hirata, et al., 2012)                     | 0.10  | 1.000  | 1.120 | a  |
| 110 | <chem>s1cccc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)CNC(=O)N4CCN(C(=O)C4=O)CC</chem><br>(Hirata, et al., 2012)           | 0.05  | 1.301  | 0.960 | a  |
| 111 | <chem>s1cccc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)CNC(=O)N4CCN(C)CC4</chem><br>(Hirata, et al., 2012)                  | 0.08  | 1.097  | 1.140 | a  |
| 112 | <chem>c1cccc1-c(ccc2O)cc2NC(=O)c3cccc3</chem><br>(Methot and Chakravarty, et al., 2008)                       | 0.058 | 1.237  | 1.090 | b  |
| 113 | <chem>c1cccc1-c(ccc2O)cc2NC(=O)c3cccn3</chem>                                                                 | 0.31  | 0.509  | 0.760 | a  |

|     |                                                                                                               |       |        |        |   |
|-----|---------------------------------------------------------------------------------------------------------------|-------|--------|--------|---|
|     | (Methot and Chakravarty, et al., 2008)                                                                        |       |        |        |   |
| 114 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                      | 0.068 | 1.167  | 0.980  | b |
| 115 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)c3ccncc3</chem><br>(Methot and Chakravarty, et al., 2008)                     | 0.075 | 1.125  | 0.960  | a |
| 116 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)c3sccc3</chem><br>(Methot and Chakravarty, et al., 2008)                      | 0.13  | 0.886  | 1.070  | b |
| 117 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)c(c3)sc(c34)cccc4</chem><br>(Methot and Chakravarty, et al., 2008)            | 0.13  | 0.886  | 1.240  | a |
| 118 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)c3ccco3</chem><br>(Methot and Chakravarty, et al., 2008)                      | 0.13  | 0.886  | 0.860  | b |
| 119 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)c3ccno3</chem><br>(Methot and Chakravarty, et al., 2008)                      | 0.10  | 1.000  | 0.800  | a |
| 120 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)CCCc3ccccc3</chem><br>(Methot and Chakravarty, et al., 2008)                  | 0.61  | 0.215  | 0.110  | a |
| 121 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)C/C=C/c3ccccc3</chem><br>(Methot and Chakravarty, et al., 2008)               | 1.2   | -0.079 | 0.230  | a |
| 122 | <chem>c1cocc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                       | 0.16  | 0.796  | 0.430  | b |
| 123 | <chem>c1cncc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                       | 1.00  | 0.000  | 0.090  | a |
| 124 | <chem>c1cnccc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                      | 0.65  | 0.187  | 0.360  | a |
| 125 | <chem>C1CCCN1c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                        | 0.67  | 0.174  | 0.500  | a |
| 126 | <chem>c1cc(F)ccc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                   | 0.14  | 0.854  | 0.460  | a |
| 127 | <chem>c1cc(N)ccc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                   | 0.33  | 0.481  | 0.150  | a |
| 128 | <chem>c1cc(N(C)C)ccc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)               | 5.3   | -0.724 | -0.650 | a |
| 129 | <chem>N#CCc(cc1)ccc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                | 0.25  | 0.602  | 0.210  | a |
| 130 | <chem>c1cc(CN)ccc1-c(ccc2N)cc2NC(=O)c3ccnc3</chem><br>(Methot and Chakravarty, et al., 2008)                  | 2.1   | -0.322 | -0.020 | a |
| 131 | <chem>c1ncccc1C(=O)Nc2cc(ccc2N)-c3ccc(cc3)CCC(=O)OC</chem><br>(Methot and Chakravarty, et al., 2008)          | 1.5   | -0.176 | 0.160  | b |
| 132 | <chem>c1ncccc1C(=O)Nc2cc(ccc2N)-c3ccc(cc3)N4CCN(CC4)c5ccccc5</chem><br>(Methot and Chakravarty, et al., 2008) | 50    | -1.699 | -2.070 | a |
| 133 | <chem>Nc1cccc1NC(=O)c2ccccc2</chem><br>(Methot and Chakravarty, et al., 2008)                                 | 2.4   | -0.380 | -0.030 | a |

|     |                                                                                                                             |       |        |        |    |
|-----|-----------------------------------------------------------------------------------------------------------------------------|-------|--------|--------|----|
| 134 | <chem>c1ccccc1-c(ccc2N)cc2NC(=O)c3ccccc3</chem><br>(Methot and Chakravarty, et al., 2008)                                   | 0.060 | 1.222  | 0.940  | a  |
| 135 | <chem>c1ccsc1-c(ccc2N)cc2NC(=O)c3ccccc3</chem><br>(Methot and Chakravarty, et al., 2008)                                    | 0.048 | 1.319  | 0.900  | b  |
| 136 | <chem>c1ccccc1-c(ccc2N)cc2NC(=O)c3ccc(nc3)N4CCN([C@H](C4)C)C(=O)OCc5ccccc5</chem><br>(Methot and Chakravarty, et al., 2008) | 0.059 | 1.229  | 1.410  | a  |
| 137 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)NC(=O)C</chem><br><b>(CI-994)</b><br>(Methot and Chakravarty, et al., 2008)                  | 0.57  | 0.244  | 0.790  | a  |
| 138 | <chem>c1ccccc1-c(ccc2O)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem><br>(Methot and Chakravarty, et al., 2008)                          | 0.018 | 1.745  | 1.850  | a* |
| 139 | <chem>c1ccccc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem><br>(Methot and Chakravarty, et al., 2008)                          | 0.028 | 1.553  | 1.800  | b* |
| 140 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CNCc3ccc(cc3)-c4cccs4</chem><br>(Kiyokawa, et al., 2010)                                     | 1.00  | 0.000  | 0.070  | a  |
| 141 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CNCc(s3)cc(c34)cccc4</chem><br>(Kiyokawa, et al., 2010)                                      | 1.1   | -0.041 | 0.020  | a  |
| 142 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CNCc3ccc(cc3)-c4cccs4</chem><br>(Kiyokawa, et al., 2010)                                     | 3.3   | -0.519 | -0.460 | a  |
| 143 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CNCc3ccc(cc3)-c4ccccc4</chem><br>(Kiyokawa, et al., 2010)                                    | 0.9   | 0.046  | 0.170  | b  |
| 144 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CN(C)Cc3ccc(cc3)-c4cccs4</chem><br>(Kiyokawa, et al., 2010)                                  | 10    | -1.000 | -0.810 | a  |
| 145 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CN(S(=O)(=O)C)Cc3ccc(cc3)-c4cccs4</chem><br>(Kiyokawa, et al., 2010)                         | 1.2   | -0.079 | 0.070  | a  |
| 146 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CN(C(=O)N(C)C)Cc3ccc(cc3)-c4cccs4</chem><br>(Kiyokawa, et al., 2010)                         | 0.8   | 0.097  | 0.130  | a  |
| 147 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CN(CCO)Cc3ccc(cc3)-c4cccs4</chem><br>(Kiyokawa, et al., 2010)                                | 0.8   | 0.097  | 0.010  | b  |
| 148 | <chem>Nc1ccccc1NC(=O)c2ccc(cc2)CN(CCO)Cc3ccc(cc3)-c4ccccc4</chem><br>(Kiyokawa, et al., 2010)                               | 0.7   | 0.155  | 0.860  | b  |
| 149 | <chem>c1ccccc1-c(c2)ccc(O)c2NC(=O)c3ccc(cc3)CNCC(C)C</chem><br>(Kattar, et al., 2009)                                       | 0.112 | 0.951  | 1.250  | b  |
| 150 | <chem>c1ccccc1-c(c2)ccc(O)c2NC(=O)c3ccc(cc3)CNCc4cnccc4</chem><br>(Kattar, et al., 2009)                                    | 0.032 | 1.495  | 1.740  | b* |
| 151 | <chem>c1ccccc1-c(c2)ccc(O)c2NC(=O)c3ccc(cc3)CNC(C)c4cnccc4</chem><br>(Kattar, et al., 2009)                                 | 0.013 | 1.886  | 2.080  | a* |
| 152 | <chem>c1c(Cl)ccc(O)c1NC(=O)c2ccc(cc2)CNC3cnccc3</chem><br>(Kattar, et al., 2009)                                            | 5.032 | -0.702 | -0.740 | a  |
| 153 | <chem>c1c(F)ccc(O)c1NC(=O)c2ccc(cc2)CNC3cnccc3</chem>                                                                       | 2.013 | -0.304 | -0.320 | a  |

|     |                                                                                                               |       |        |        |    |
|-----|---------------------------------------------------------------------------------------------------------------|-------|--------|--------|----|
|     | (Kattar, et al., 2009)                                                                                        |       |        |        |    |
| 154 | <chem>c1c(Br)ccc(O)c1NC(=O)c2ccc(cc2)CNC3ccncc3</chem><br>(Kattar, et al., 2009)                              | 5.223 | -0.718 | -0.700 | a  |
| 155 | <chem>c1cccc(O)c1NC(=O)c2ccc(cc2)CNC3ccncc3</chem><br>(Kattar, et al., 2009)                                  | 1.568 | -0.195 | -0.350 | a  |
| 156 | <chem>COC(c1)ccc(O)c1NC(=O)c2ccc(cc2)CNC3ccncc3</chem><br>(Kattar, et al., 2009)                              | 7.964 | -0.901 | -0.490 | a  |
| 157 | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CNCc4c(C)n(C)nc4</chem><br>(Kattar, et al., 2009)                  | 0.013 | 1.886  | 1.860  | a* |
| 158 | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)                 | 0.033 | 1.481  | 1.650  | a* |
| 159 | <chem>c1cccc(F)c1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)             | 0.016 | 1.796  | 2.110  | a* |
| 160 | <chem>c1ccc(F)cc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)             | 0.047 | 1.328  | 2.180  | b  |
| 161 | <chem>c1cc(F)ccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)             | 0.013 | 1.886  | 1.730  | a* |
| 162 | <chem>s1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)             | 0.011 | 1.959  | 1.980  | b* |
| 163 | <chem>c1cccc(F)c1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)         | 0.011 | 1.959  | 2.040  | a* |
| 164 | <chem>c1cc(F)ccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem><br>(Kattar, et al., 2009)         | 0.012 | 1.921  | 1.640  | a* |
| 165 | <chem>c1ncccc1COC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Mahboobi, et al., 2009)                         | 0.74  | 0.131  | 0.290  | a  |
| 166 | <chem>c1ncccc1-c(c2)nc2Nc3cc(ccc3C)NC(=O)c4ccc(s4)C(=O)Nc5c(N)cccc5</chem><br>(Mahboobi, et al., 2009)        | 0.23  | 0.638  | 0.720  | a  |
| 167 | <chem>c1ncccc1-c2nc(sc2)Nc3cc(ccc3C)NC(=O)c4cccc(c4)C(=O)Nc5c(N)cccc5</chem><br>(Mahboobi, et al., 2009)      | 0.17  | 0.770  | 0.890  | a  |
| 168 | <chem>c1ncccc1-c2nc(sc2)Nc3cc(ccc3C)NC(=O)c4cccc(n4)C(=O)Nc5c(N)cccc5</chem><br>(Mahboobi, et al., 2009)      | 0.45  | 0.347  | 0.360  | a  |
| 169 | <chem>c1ncccc1-c2nc(sc2)Nc3cc(ccc3C)NC(=O)c4cccc(n4)C(=O)Nc5c(N)cccc5</chem><br>(Mahboobi, et al., 2009)      | 0.31  | 0.509  | 0.290  | b  |
| 170 | <chem>c1ncccc1-c2nc(sc2)Nc3cc(ccc3C)NC(=O)c4ccc(s4)C(=O)Nc5c(N)cccc5</chem><br>(Mahboobi, et al., 2009)       | 1.13  | -0.053 | 0.200  | a  |
| 171 | <chem>c1cccc1N(CNC2=O)C23CCN(CC3)c(nc4)ccc4C(=O)Nc5cccc5N</chem><br>(Methot and Hamblett, et al., 2008)       | 0.039 | 1.409  | 1.520  | a  |
| 172 | <chem>c1cccc1S(=O)(=O)N(C2)CCC23CN(CC3)c(nc4)ccc4C(=O)Nc5cccc5N</chem><br>(Methot and Hamblett, et al., 2008) | 0.120 | 0.921  | 0.940  | a  |
| 173 | <chem>c1cccc(NC2)c1C23CCN(CC3)c(nc4)ccc4C(=O)Nc5cccc5N</chem><br>(Methot and Hamblett, et al., 2008)          | 0.130 | 0.886  | 0.940  | b  |

|     |                                                                                                                    |       |       |       |    |
|-----|--------------------------------------------------------------------------------------------------------------------|-------|-------|-------|----|
| 174 | <chem>c1cccc(CNC2)c1C23CCN(CC3)c(nc4)ccc4C(=O)Nc5cccc5N</chem><br>(Methot and Hamblett, et al., 2008)              | 0.089 | 1.051 | 1.080 | a  |
| 175 | <chem>s1cccc1-c(ccc2N)cc2NC(=O)c3cccn3</chem><br>(Methot and Hamblett, et al., 2008)                               | 0.065 | 1.187 | 0.580 | a  |
| 176 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cccc4N</chem><br>(Methot and Hamblett, et al., 2008)                       | 0.160 | 0.796 | 0.630 | b  |
| 177 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)            | 0.011 | 1.959 | 1.890 | b* |
| 178 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cn(C)nc5</chem><br>(Methot and Hamblett, et al., 2008)         | 0.036 | 1.444 | 1.480 | a  |
| 179 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cc[nH]n5</chem><br>(Methot and Hamblett, et al., 2008)         | 0.018 | 1.745 | 1.590 | a* |
| 180 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cn(cn5)C</chem><br>(Methot and Hamblett, et al., 2008)         | 0.022 | 1.658 | 1.690 | a* |
| 181 | <chem>CCNC(=O)N(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)  | 0.014 | 1.854 | 1.830 | a* |
| 182 | <chem>n1cccn1N(CC2)CC23CCN(CC3)c(nc4)ccc4C(=O)Nc5cc(ccc5N)-c6cccc6</chem><br>(Methot and Hamblett, et al., 2008)   | 0.028 | 1.553 | 1.590 | a* |
| 183 | <chem>FC(F)(F)CN(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008) | 0.017 | 1.770 | 1.980 | b* |
| 184 | <chem>OC(=O)N(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)    | 0.017 | 1.770 | 1.770 | a* |
| 185 | <chem>NC(=O)N(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)    | 0.013 | 1.886 | 1.790 | b* |
| 186 | <chem>CC(=O)N(C1)CCC12CN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)     | 0.012 | 1.921 | 1.950 | a* |
| 187 | <chem>CC(=O)N(C1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)     | 0.023 | 1.638 | 1.910 | b* |
| 188 | <chem>C1CCN(C(=O)C)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)    | 0.023 | 1.638 | 1.940 | a* |
| 189 | <chem>C1CCC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)        | 0.013 | 1.886 | 1.740 | a* |
| 190 | <chem>C1CCC(O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)         | 0.029 | 1.538 | 2.020 | b* |
| 191 | <chem>C1CNC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)        | 0.021 | 1.678 | 1.950 | a* |
| 192 | <chem>C1NC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)         | 0.011 | 1.959 | 2.110 | b* |
| 193 | <chem>C1C(=O)NCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem><br>(Methot and Hamblett, et al., 2008)        | 0.013 | 1.886 | 2.000 | a* |
| 194 | <chem>N1CNC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccc5</chem>                                               | 0.011 | 1.959 | 2.280 | b* |

|     |                                                                                                      |      |        |        |   |
|-----|------------------------------------------------------------------------------------------------------|------|--------|--------|---|
|     | (Methot and Hamblett, et al., 2008)                                                                  |      |        |        |   |
| 195 | <chem>c1cccc1NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                               | 9.2  | -0.964 | -0.890 | a |
| 196 | <chem>Brc1ccc(cc1)NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                          | 1.7  | -0.230 | -0.160 | a |
| 197 | <chem>Clc1cccc1NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                             | 2.9  | -0.462 | -0.470 | a |
| 198 | <chem>Clc1cccc(c1)NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                          | 1.8  | -0.255 | -0.060 | a |
| 199 | <chem>Clc1ccc(cc1)NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                          | 1.4  | -0.146 | -0.140 | b |
| 200 | <chem>O=[N+][O-]c1cccc1NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                     | 3.1  | -0.491 | -0.360 | a |
| 201 | <chem>O=[N+][O-]c1cccc(c1)NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                  | 2.3  | -0.362 | -0.120 | b |
| 202 | <chem>O=[N+][O-]c1ccc(cc1)NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                  | 0.9  | 0.046  | -0.230 | a |
| 203 | <chem>COc1ccc(cc1)NC(=O)CNCCCC(=O)Nc2cccc2N</chem><br>(Rajak, et al., 2012)                          | 3.6  | -0.556 | -0.710 | b |
| 204 | <chem>c1cccc1NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)                     | 7.4  | -0.869 | -0.670 | a |
| 205 | <chem>Brc1ccc(cc1)NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)                | 1.6  | -0.204 | -0.500 | b |
| 206 | <chem>Clc1cccc1NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)                   | 2.9  | -0.462 | -0.400 | a |
| 207 | <chem>Clc1cccc(c1)NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)                | 2.5  | -0.398 | -0.590 | a |
| 208 | <chem>O=[N+][O-]c1cccc1NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)           | 2.00 | -0.301 | -0.550 | a |
| 209 | <chem>COc1ccc(cc1)NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)                | 3.1  | -0.491 | -0.490 | b |
| 210 | <chem>Cc1ccc(cc1)NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)                 | 4.5  | -0.653 | -0.480 | b |
| 211 | <chem>Clc1ccc(Cl)c(c1)NC(=O)CNc2ccc(cc2)C(=O)Nc3c(N)cccc3</chem><br>(Rajak, et al., 2012)            | 8.6  | -0.934 | -0.710 | a |
| 212 | <chem>c1cccc(N)c1NC(=O)C=C\c(cc2)ccc2-c3nnc(o3)Cc4cccc(c45)cccc5</chem><br>(Valente, et al., 2014)   | 1.00 | 0.000  | -0.220 | a |
| 213 | <chem>c1cccc(N)c1NC(=O)C=C\c(cc2)ccc2-c3nnc(o3)Cc(c4)ccc(c45)cccc5</chem><br>(Valente, et al., 2014) | 2.4  | -0.380 | -0.570 | a |
| 214 | <chem>c1cccc(N)c1NC(=O)C=C\c(cc2)ccc2-c3nnc(o3)Cc4c[nH]c(c45)cccc5</chem><br>(Valente, et al., 2014) | 1.5  | -0.176 | -0.200 | a |

|     |                                                                                                     |       |        |        |   |
|-----|-----------------------------------------------------------------------------------------------------|-------|--------|--------|---|
| 215 | <chem>c1cccc(N)c1NC(=O)\C=C\c(cc2)ccc2Cc3nnc(o3)Cc4cccc(c45)cccc5</chem><br>(Valente, et al., 2014) | 4.1   | -0.613 | -0.620 | a |
| 216 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3nnc(o3)Cc4cccc(c45)cccc5</chem><br>(Valente, et al., 2014)      | 0.3   | 0.523  | 0.250  | a |
| 217 | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2Cc3nnc(o3)Cc4cccc(c45)cccc5</chem><br>(Valente, et al., 2014)      | 0.2   | 0.699  | 0.240  | b |
| 218 | <chem>s1ccnc1C(=O)NCCCCC(=O)Nc2ccc(F)cc2N</chem><br>(Rusche, et al., 2016)                          | 18    | -1.255 | -1.480 | a |
| 219 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)C(C)c(c23)cccc3</chem><br>(Rusche, et al., 2016)               | 0.371 | 0.431  | 0.720  | a |
| 220 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)c(OC)ccc3</chem><br>(Rusche, et al., 2016)              | 0.299 | 0.524  | 0.570  | a |
| 221 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)c(ccc3)OCC</chem><br>(Rusche, et al., 2016)             | 0.262 | 0.582  | 0.590  | a |
| 222 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)c(F)ccc3</chem><br>(Rusche, et al., 2016)               | 0.436 | 0.361  | 0.540  | a |
| 223 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)c(Cl)ccc3</chem><br>(Rusche, et al., 2016)              | 0.254 | 0.595  | 0.530  | a |
| 224 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cc(cc3)OC(F)(F)F</chem><br>(Rusche, et al., 2016)       | 0.550 | 0.260  | 0.380  | a |
| 225 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cc(C)cc3</chem><br>(Rusche, et al., 2016)               | 0.426 | 0.371  | 0.470  | a |
| 226 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cc(F)cc3</chem><br>(Rusche, et al., 2016)               | 0.384 | 0.416  | 0.350  | b |
| 227 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cc(Cl)cc3</chem><br>(Rusche, et al., 2016)              | 0.203 | 0.693  | 0.610  | a |
| 228 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cccc3OC</chem><br>(Rusche, et al., 2016)                | 0.392 | 0.407  | 0.490  | b |
| 229 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cccc3C</chem><br>(Rusche, et al., 2016)                 | 0.059 | 1.229  | 0.640  | b |
| 230 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cccc3F</chem><br>(Rusche, et al., 2016)                 | 0.079 | 1.102  | 1.180  | a |
| 231 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)ccc(c3)N(C)C</chem><br>(Rusche, et al., 2016)           | 0.081 | 1.092  | 1.260  | a |
| 232 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)c(OC(F)F)ccc3</chem><br>(Rusche, et al., 2016)          | 0.041 | 1.387  | 1.500  | a |
| 233 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(n2C)cc(c23)cccc3</chem><br>(Rusche, et al., 2016)                  | 0.135 | 0.870  | 0.580  | a |
| 234 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(n2C)cc(c23)cc(F)cc3</chem><br>(Rusche, et al., 2016)               | 0.081 | 1.092  | 0.810  | a |
| 235 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(n2C)cc(c23)cc(Cl)cc3</chem>                                        | 0.061 | 1.215  | 0.770  | b |

|     |                                                                                            |       |        |        |   |
|-----|--------------------------------------------------------------------------------------------|-------|--------|--------|---|
|     | (Rusche, et al., 2016)                                                                     |       |        |        |   |
| 236 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(n2CCOC)cc(c23)cccc3</chem><br>(Rusche, et al., 2016)      | 0.195 | 0.710  | 0.850  | a |
| 237 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2cccc2CC</chem><br>(Rusche, et al., 2016)                  | 3.756 | -0.575 | -0.570 | a |
| 238 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2cccc(c2)N(C)C</chem><br>(Rusche, et al., 2016)            | 0.585 | 0.233  | 0.270  | b |
| 239 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C=2CN=c(c23)c(OC)ccc3</chem><br>(Rusche, et al., 2016)      | 0.196 | 0.708  | 0.520  | b |
| 240 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)cc(c23)n(C)cc3</chem><br>(Rusche, et al., 2016)       | 0.378 | 0.423  | 0.540  | a |
| 241 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)c(c23)[nH]c(C)c3C</chem><br>(Rusche, et al., 2016)    | 0.207 | 0.684  | 0.600  | a |
| 242 | <chem>c1ccc(OC(F)(F)F)cc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)      | 0.468 | 0.330  | 0.250  | a |
| 243 | <chem>FC(F)(F)Oc(cc1)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)      | 0.501 | 0.300  | 0.180  | a |
| 244 | <chem>c1cccc(c12)n(C)cc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)       | 0.174 | 0.759  | 0.600  | a |
| 245 | <chem>CCOc(cc1)cc(c12)CC(=N2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)  | 0.359 | 0.445  | 0.590  | a |
| 246 | <chem>CCNc(cc1)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)            | 0.403 | 0.395  | 0.660  | a |
| 247 | <chem>Cc1c(C)[nH]c(c12)ccc(c2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016) | 0.270 | 0.569  | 0.070  | b |
| 248 | <chem>c1ccc(Cl)c(c12)=NCC=2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.172 | 0.764  | 0.700  | a |
| 249 | <chem>c1cc(C)ccc1C(=O)NCCCCC(=O)Nc2c(O)cccc2</chem><br>(Rusche, et al., 2016)              | 0.224 | 0.650  | 0.760  | a |
| 250 | <chem>c1c(C)cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)              | 0.527 | 0.278  | 0.250  | b |
| 251 | <chem>Cc1cc(C)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)             | 2.143 | -0.331 | -0.210 | a |
| 252 | <chem>c1cc(C(F)F)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)          | 0.362 | 0.441  | 0.180  | a |
| 253 | <chem>c1cc(C(C)(C)O)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)       | 0.402 | 0.396  | 0.430  | b |
| 254 | <chem>C1CCN1c(cc2)ccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)         | 0.272 | 0.565  | 0.530  | a |
| 255 | <chem>C1CN(C)CCN1c(c2)cccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.365 | 0.438  | 0.400  | a |

|     |                                                                                         |       |        |        |   |
|-----|-----------------------------------------------------------------------------------------|-------|--------|--------|---|
| 256 | <chem>C1CN(C)CCN1c2cccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 3.581 | -0.554 | -0.650 | a |
| 257 | <chem>C1COCCN1c(cc2)ccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.334 | 0.476  | 0.560  | a |
| 258 | <chem>c1cccc(Cl)c1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)          | 2.035 | -0.309 | -0.150 | a |
| 259 | <chem>c1c(F)c(F)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)        | 0.772 | 0.112  | -0.200 | b |
| 260 | <chem>c1cccc(c12)=NCC=2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)     | 0.246 | 0.609  | 0.470  | a |
| 261 | <chem>COc(c1)ccc(c12)=NCC=2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016) | 0.218 | 0.662  | 0.640  | b |
| 262 | <chem>C1CCCCC1c2cccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)       | 2.768 | -0.442 | -0.260 | a |
| 263 | <chem>c1cccc(COC)c1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)         | 3.278 | -0.516 | -0.370 | a |
| 264 | <chem>c1cc(OC)cc(c12)=NCC=2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016) | 0.248 | 0.606  | 0.450  | b |
| 265 | <chem>N1=CCc(c12)c(ccc2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.524 | 0.281  | 0.150  | b |
| 266 | <chem>Cn1ccc(c12)c(ccc2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.448 | 0.349  | 0.340  | a |
| 267 | <chem>Nc1cccc1NC(=O)CCCCNC(=O)c(c2)ccc(c23)[nH]cc3</chem><br>(Rusche, et al., 2016)     | 0.210 | 0.678  | 0.370  | a |
| 268 | <chem>c1cn(C)c(c12)ccc(c2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)  | 0.218 | 0.662  | 0.280  | b |
| 269 | <chem>c1cccc(c12)n(C)nc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.299 | 0.524  | 0.530  | a |
| 270 | <chem>c1n[nH]c(c12)c(ccc2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)  | 0.371 | 0.431  | 0.480  | a |
| 271 | <chem>C=CCc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)           | 2.698 | -0.431 | -0.440 | a |
| 272 | <chem>CCOc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)            | 0.549 | 0.260  | 0.360  | b |
| 273 | <chem>CCCOc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)           | 0.399 | 0.399  | 0.290  | a |
| 274 | <chem>c1cccc(SCC)c1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)         | 1.333 | -0.125 | -0.140 | a |
| 275 | <chem>O=S(=O)(C)c1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)     | 4.447 | -0.648 | -0.190 | b |
| 276 | <chem>N#Cc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem>                                      | 0.426 | 0.371  | 0.090  | b |

|     |                                                                                            |       |        |        |   |
|-----|--------------------------------------------------------------------------------------------|-------|--------|--------|---|
|     | (Rusche, et al., 2016)                                                                     |       |        |        |   |
| 277 | <chem>O=C(C)c1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)            | 2.644 | -0.422 | -0.370 | a |
| 278 | <chem>c1cccc1C(=O)c(cccc2)c2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)   | 2.720 | -0.435 | -0.430 | a |
| 279 | <chem>c1cccc1-c2cccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)          | 5.732 | -0.758 | -0.830 | a |
| 280 | <chem>FC(F)Oc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)            | 1.479 | -0.170 | 0.030  | b |
| 281 | <chem>COCCOc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)             | 2.396 | -0.379 | -0.310 | a |
| 282 | <chem>FC(F)(F)c1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)          | 3.564 | -0.552 | -0.490 | a |
| 283 | <chem>Fc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)                 | 1.135 | -0.055 | -0.230 | b |
| 284 | <chem>COc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)                | 0.674 | 0.171  | -0.080 | b |
| 285 | <chem>Brc1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)                | 2.719 | -0.434 | -0.160 | a |
| 286 | <chem>COc1cccc(c12)=NCC=2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)      | 0.197 | 0.706  | 0.500  | a |
| 287 | <chem>c1c[nH]c(c12)c(ccc2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)     | 0.278 | 0.556  | 0.360  | b |
| 288 | <chem>c1n[nH]c(c12)cc(cc2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)     | 0.582 | 0.235  | 0.100  | a |
| 289 | <chem>COc(c1)ccc(c12)CC(=N2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)   | 0.193 | 0.714  | 0.860  | a |
| 290 | <chem>c1cc(NC)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)             | 0.449 | 0.348  | 0.090  | b |
| 291 | <chem>C1CC1Nc(cc2)ccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)         | 0.315 | 0.502  | -0.010 | b |
| 292 | <chem>C1CN(C)CCN1c(cc2)ccc2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.445 | 0.352  | 0.190  | b |
| 293 | <chem>c1c(C)ccc(c12)CC(=N2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.177 | 0.752  | 0.650  | a |
| 294 | <chem>CCOc(cc1)cc(c12)cc(n2C)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)  | 0.327 | 0.485  | 0.500  | a |
| 295 | <chem>Cc1c(C)[nH]c(c12)cc(cc2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016) | 0.201 | 0.697  | 0.750  | a |
| 296 | <chem>c1c(C)ccc(c12)n[nH]c2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)    | 0.220 | 0.658  | 0.720  | a |

|     |                                                                                         |       |        |        |    |
|-----|-----------------------------------------------------------------------------------------|-------|--------|--------|----|
| 297 | <chem>c1c(Cl)ccc(c12)=NCC=2C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016) | 0.263 | 0.580  | 0.490  | a  |
| 298 | <chem>c1c[nH]c(c12)cc(cc2)C(=O)NCCCCC(=O)Nc3c(N)cccc3</chem><br>(Rusche, et al., 2016)  | 0.234 | 0.631  | 0.120  | b  |
| 299 | <chem>c1cccc1S(=O)(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)           | 7.00  | -0.845 | -0.850 | a  |
| 300 | <chem>c1cc(C)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)           | 0.19  | 0.721  | 0.220  | b  |
| 301 | <chem>c1cccc(c12)cc(o2)C(=O)NCCCCC(=O)Nc3c(N)cc(F)cc3</chem><br>(Rusche, et al., 2016)  | 0.76  | 0.119  | 0.30   | a  |
| 302 | <chem>c1cc(C)ccc1C(=O)NCCCCC(=O)Nc2c(O)cc(F)cc2</chem><br>(Rusche, et al., 2016)        | 1.00  | 0.00   | -0.11  | b  |
| 303 | <chem>n1cccc1C(=O)NCCCCC(=O)Nc2c(N)cc(F)cc2</chem><br>(Rusche, et al., 2016)            | 3.890 | -0.59  | -0.55  | a  |
| 304 | <chem>c1ncccc1C(=O)NCCCCC(=O)Nc2cc(ccc2N)-c3cccs3</chem><br>(Rusche, et al., 2016)      | 0.021 | 1.678  | 1.72   | a* |
| 305 | <chem>c1cc(F)ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)              | 1.8   | -0.255 | -0.03  | a  |
| 306 | <chem>c1cc(Cl)ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)             | 0.7   | 0.155  | 0.25   | b  |
| 307 | <chem>c1cc(OC)ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)             | 1.7   | -0.230 | -0.18  | a  |
| 308 | <chem>c1c(Cl)cccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)             | 2     | -0.301 | -0.11  | a  |
| 309 | <chem>c1cc(N(C)C)ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)          | 1.00  | 0.00   | 0.160  | b  |
| 310 | <chem>c1cc(C(C)(C)C)ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)       | 0.6   | 0.222  | 0.45   | b  |
| 311 | <chem>c1cc(C(F)(F)F)ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)       | 1.1   | -0.041 | -0.08  | a  |
| 312 | <chem>c1cc([N+])([O-])ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)     | 1.2   | -0.079 | 0.05   | b  |
| 313 | <chem>[O-][N+](=O)c(c1)cccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)   | 0.8   | 0.097  | 0.01   | b  |
| 314 | <chem>FC(F)(F)c(c1)cccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)       | 0.7   | 0.155  | 0.00   | a  |
| 315 | <chem>c1cc(C#N)ccc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)            | 0.7   | 0.155  | -0.14  | b  |
| 316 | <chem>c1c(Cl)cc(Cl)cc1C(=O)NCCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)         | 0.4   | 0.398  | 0.270  | b  |
| 317 | <chem>c1ccsc1C(=O)NCCCCC(=O)Nc2cccc2N</chem>                                            | 0.649 | 0.188  | 0.13   | a  |

|     |                                                                                          |       |        |        |   |
|-----|------------------------------------------------------------------------------------------|-------|--------|--------|---|
|     | (Rusche, et al., 2016)                                                                   |       |        |        |   |
| 318 | <chem>c1cc(C)ccc1C(=O)NCCCCC(=O)Nc2cc(c(F)cc2N)-n3cccn3</chem><br>(Rusche, et al., 2016) | 0.442 | 0.355  | 0.210  | a |
| 319 | <chem>O1COc(c12)c(N)c(cc2)NC(=O)CCCCCNC(=O)c3ccc(C)cc3</chem><br>(Rusche, et al., 2016)  | 2.89  | -0.461 | -0.5   | a |
| 320 | <chem>n1ccsc1C(=O)NCCCCC(=O)Nc2ccccc2N</chem><br>(Rusche, et al., 2016)                  | 0.973 | 0.012  | -0.030 | a |
| 321 | <chem>n1c(C)csc1C(=O)NCCCCC(=O)Nc2ccccc2N</chem><br>(Rusche, et al., 2016)               | 0.721 | 0.142  | 0.470  | a |
| 322 | <chem>n1cc(C)sc1C(=O)NCCCCC(=O)Nc2ccccc2N</chem><br>(Rusche, et al., 2016)               | 0.816 | 0.088  | -0.100 | a |
| 323 | <chem>c1cc(Cl)cc(Cl)c1C(=O)NCCCCC(=O)Nc2ccccc2N</chem><br>(Rusche, et al., 2016)         | 2.270 | -0.356 | -0.230 | a |
| 324 | <chem>c1cc(S(=O)(=O)C)ccc1S(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)   | 0.57  | 0.244  | 0.140  | b |
| 325 | <chem>c1cc(S(=O)(=O)N)ccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)   | 1.104 | -0.043 | -0.03  | a |
| 326 | <chem>c1cnccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)               | 1.260 | -0.100 | -0.150 | b |
| 327 | <chem>n1ccncc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)               | 2.045 | -0.311 | -0.410 | a |
| 328 | <chem>c1nnccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)               | 2.565 | -0.409 | -0.460 | a |
| 329 | <chem>c1ccoc1C(=O)NCCCCC(=O)Nc2ccccc2N</chem><br>(Rusche, et al., 2016)                  | 0.99  | 0.004  | 0.130  | a |
| 330 | <chem>c1cocc1C(=O)NCCCCC(=O)Nc2ccccc2N</chem><br>(Rusche, et al., 2016)                  | 1.24  | -0.093 | -0.040 | a |
| 331 | <chem>c1csc1C(=O)NCCCCC(=O)Nc2ccccc2N</chem><br>(Rusche, et al., 2016)                   | 0.76  | 0.119  | 0.000  | b |
| 332 | <chem>[nH]1cccc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)             | 0.463 | 0.334  | 0.240  | a |
| 333 | <chem>[nH]1cnnc1C(=O)NCCCCC(=O)Nc2c(N)cccc2</chem><br>(Rusche, et al., 2016)             | 2.689 | -0.43  | -0.20  | a |
| 334 | <chem>Nc1ccccc1NC(=O)CCCCCNC(=O)c2oncc2</chem><br>(Rusche, et al., 2016)                 | 1.372 | -0.137 | -0.230 | a |
| 335 | <chem>Nc1ccccc1NC(=O)CCCCCNC(=O)c2ncsc2</chem><br>(Rusche, et al., 2016)                 | 1.039 | -0.017 | -0.090 | a |
| 336 | <chem>Nc1ccccc1NC(=O)CCCCCNC(=O)c2cc(ncc2)N3CCCCC3</chem><br>(Rusche, et al., 2016)      | 0.238 | 0.623  | 0.620  | b |
| 337 | <chem>Nc1ccccc1NC(=O)CCCCCNC(=O)c2n[nH]c(c2)-c3ccccc3</chem><br>(Rusche, et al., 2016)   | 0.388 | 0.411  | 0.490  | b |

|     |                                                                                        |       |        |        |   |
|-----|----------------------------------------------------------------------------------------|-------|--------|--------|---|
| 338 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)cc(c23)OCCO3</chem><br>(Rusche, et al., 2016)     | 0.754 | 0.123  | 0.420  | b |
| 339 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(c2)oc(c23)cccc3</chem><br>(Rusche, et al., 2016)      | 0.418 | 0.379  | 0.440  | a |
| 340 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)cc(c23)scn3</chem><br>(Rusche, et al., 2016)      | 0.433 | 0.364  | 0.570  | b |
| 341 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)CCC(=O)c2cccs2</chem><br>(Rusche, et al., 2016)         | 0.78  | 0.108  | 0.060  | a |
| 342 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)cc(c23)non3</chem><br>(Rusche, et al., 2016)      | 1.238 | -0.093 | -0.150 | a |
| 343 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)cc(c23)ncn3</chem><br>(Rusche, et al., 2016)      | 1.027 | -0.012 | -0.220 | a |
| 344 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)cc(c23)nccc3</chem><br>(Rusche, et al., 2016)     | 0.617 | 0.210  | -0.190 | b |
| 345 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(c2)ccc(c23)cccc3</chem><br>(Rusche, et al., 2016)     | 0.187 | 0.728  | 0.550  | a |
| 346 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cc2)cc(c23)NC(=O)C3</chem><br>(Rusche, et al., 2016)  | 0.725 | 0.140  | 0.120  | a |
| 347 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2cc(ccc2)-c3nnn[nH]3</chem><br>(Rusche, et al., 2016)  | 0.466 | 0.332  | 0.290  | a |
| 348 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2ccc(cc2)-c3nnn[nH]3</chem><br>(Rusche, et al., 2016)  | 0.371 | 0.431  | 0.440  | a |
| 349 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)CCc2oc(cn2)-c3ccccc3</chem><br>(Rusche, et al., 2016)   | 0.312 | 0.506  | 0.460  | a |
| 350 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(no2)cc2-c3cscc3</chem><br>(Rusche, et al., 2016)      | 0.484 | 0.315  | 0.370  | a |
| 351 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cc(cc3)OC</chem><br>(Rusche, et al., 2016) | 0.258 | 0.588  | 0.720  | b |
| 352 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2noc(c2)C3CC3</chem><br>(Rusche, et al., 2016)         | 0.673 | 0.172  | 0.040  | b |
| 353 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2n[nH]c(c23)cccc3</chem><br>(Rusche, et al., 2016)     | 0.107 | 0.971  | 0.310  | b |
| 354 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(nc2)cc(c23)cccc3</chem><br>(Rusche, et al., 2016)     | 0.264 | 0.578  | 0.550  | a |
| 355 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cn2)cc(c23)cccc3</chem><br>(Rusche, et al., 2016)     | 0.479 | 0.320  | 0.160  | b |
| 356 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cnn2)c(c23)cccc3</chem><br>(Rusche, et al., 2016)     | 4.312 | -0.635 | -0.490 | a |
| 357 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(cn2)nc(c23)cccc3</chem><br>(Rusche, et al., 2016)     | 0.388 | 0.411  | 0.410  | a |
| 358 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2csc(cn2)-c3ccncc3</chem>                              | 0.3   | 0.523  | 0.580  | b |

|     |                                                                                        |       |        |        |   |
|-----|----------------------------------------------------------------------------------------|-------|--------|--------|---|
|     | (Rusche, et al., 2016)                                                                 |       |        |        |   |
| 359 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2sc(nc2C)-c3cnccc3</chem><br>(Rusche, et al., 2016)    | 0.352 | 0.453  | 0.430  | b |
| 360 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2ccc(cc2)-n3cccc3</chem><br>(Rusche, et al., 2016)     | 0.258 | 0.588  | 0.020  | a |
| 361 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C2CCN(CC2)c3ccncc3</chem><br>(Rusche, et al., 2016)     | 1.725 | -0.237 | -0.290 | a |
| 362 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2c(C)nc(s2)-c3ccccn3</chem><br>(Rusche, et al., 2016)  | 0.483 | 0.316  | 0.450  | b |
| 363 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C(=N2)Cc(c23)cc(cc3)OC</chem><br>(Rusche, et al., 2016) | 3.709 | -0.569 | -0.630 | a |
| 364 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(c2)ccc(c23)ncs3</chem><br>(Rusche, et al., 2016)      | 11.39 | -1.057 | -1.150 | a |
| 365 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2nc(sc2)-c3ccncc3</chem><br>(Rusche, et al., 2016)     | 2.766 | -0.442 | -0.510 | a |
| 366 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2ccnc(c2)N3CCCCC3</chem><br>(Rusche, et al., 2016)     | 18.24 | -1.261 | -1.220 | a |
| 367 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c(c2)ccc(c23)OCCO3</chem><br>(Rusche, et al., 2016)     | 4.615 | -0.664 | -0.050 | b |
| 368 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)C2=NN=C(C2)c3cccc3</chem><br>(Rusche, et al., 2016)     | 2.026 | -0.307 | 0.060  | b |
| 369 | <chem>Nc1cccc1NC(=O)CCCCCNC(=O)c2cc(no2)-c(cn3)cn3C</chem><br>(Rusche, et al., 2016)   | 7.274 | -0.862 | -0.800 | a |
| 370 | <chem>c1cc(C)ccc1NC(=O)CCCCC(=O)Nc2cccc2N</chem><br>(Rusche, et al., 2016)             | 3.050 | -0.484 | -0.510 | a |

**Table S2.** Experimental (Observed column) and predicted (Predicted column) activity pIC<sub>50</sub> for compounds included in the external test set. (Note: \* compounds used for the decoys generation).

| Compounds |                                                                                                 | Observed<br>IC <sub>50</sub> (μM) | Observed<br>pIC <sub>50</sub> | Predicted<br>pIC <sub>50</sub> | Note |
|-----------|-------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------|--------------------------------|------|
| 371       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CCNC(=O)/C=C/c(c3)n(c34)cccc4</chem><br>(Li et al., 2015)         | 0.217                             | 0.66                          | 0.34                           |      |
| 372       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CCNC(=O)/C=C/c(c3)Cn(c34)cccc4</chem><br>(Li et al., 2015)        | 0.169                             | 0.77                          | 0.35                           |      |
| 373       | <chem>Nc1cc(F)ccc1NC(=O)c2ccc(cc2)CNC(=O)/C=C/c(c3)n(c34)nccc4</chem><br>(Li et al., 2015)      | 0.131                             | 0.81                          | 0.28                           |      |
| 374       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3nc(ccn3)-c(c4)n(c45)ccnc5</chem><br>(Li et al., 2013)         | 0.110                             | 0.96                          | 0.81                           |      |
| 375       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3nc(ccn3)-c(c4)Cn(c45)cccc5</chem><br>(Li et al., 2013)        | 0.108                             | 0.97                          | 0.69                           |      |
| 376       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3nc(ccn3)-c(c4)Cn(c45)cccn5</chem><br>(Li et al., 2013)        | 0.127                             | 0.90                          | 0.67                           |      |
| 377       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3nc(ccn3)-c(c4)Cn(c45)ccnc5</chem><br>(Li et al., 2013)        | 0.097                             | 1.01                          | 0.69                           |      |
| 378       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CCNC3nc(ccn3)-c(c4)Cn(c45)cccn5</chem><br>(Li et al., 2013)       | 0.154                             | 0.81                          | 0.96                           |      |
| 379       | <chem>Nc1ccc(F)cc1NC(=O)c2ccc(cc2)CNC3nc(ccn3)-c(c4)Cn(c45)cccc5</chem><br>(Li et al., 2013)    | 0.097                             | 1.01                          | 0.75                           |      |
| 380       | <chem>Nc1cc(F)ccc1NC(=O)c2ccc(cc2)CNC3nc(ccn3)-c(c4)Cn(c45)cccc5</chem><br>(Li et al., 2013)    | 0.135                             | 0.87                          | 0.71                           |      |
| 381       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3nc(ccn3)-c(c4)Cn(c45)cc(Br)cc5</chem><br>(Li et al., 2013)    | 0.125                             | 0.90                          | 0.73                           |      |
| 382       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CSc3[nH]ccn3</chem><br>(Frechette et al., 2008)                   | 0.5                               | 0.30                          | 0.10                           |      |
| 383       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CSc3n(C)ccn3</chem><br>(Frechette et al., 2008)                   | 1                                 | 0.00                          | 0.11                           |      |
| 384       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3sc(Br)cn3</chem><br>(Frechette et al., 2008)                  | 0.4                               | 0.40                          | 0.31                           |      |
| 385       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3n[nH]c(n3)SC</chem><br>(Frechette et al., 2008)               | 0.2                               | 0.70                          | 0.62                           |      |
| 386       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3cc([nH]n3)-c4cccc4</chem><br>(Frechette et al., 2008)         | 0.07                              | 1.15                          | 0.82                           |      |
| 387       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3sc(c3)-c4ccc(Cl)cc4</chem><br>(Frechette et al., 2008)        | 0.3                               | 0.52                          | 0.52                           |      |
| 388       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CSc(s3)nc(c34)ccc(c4)NCc5ccnc5</chem><br>(Frechette et al., 2008) | 0.8                               | 0.1                           | 0.31                           |      |

|     |                                                                                                     |       |       |       |  |
|-----|-----------------------------------------------------------------------------------------------------|-------|-------|-------|--|
| 389 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CSC3=N[C@H](CN3)c4cccc4</chem><br>(Marson et al., 2015)               | 0.24  | 0.62  | 0.31  |  |
| 390 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CSC3=N[C@H](CN3)c4cccc4</chem><br>(Marson et al., 2015)               | 0.38  | 0.420 | 0.067 |  |
| 391 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CSC3=N[C@H](CO3)Cc4cccc4</chem><br>(Marson et al., 2015)              | 0.70  | 0.15  | 0.23  |  |
| 392 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=N[C@H](CO3)c4cccc4</chem><br>(Marson et al., 2015)               | 0.53  | 0.27  | 0.42  |  |
| 393 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=NC(CO3)c4ccc(F)cc4</chem><br>(Marson et al., 2015)               | 0.19  | 0.72  | 0.33  |  |
| 394 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=NC(CO3)c4cc(F)ccc4</chem><br>(Marson et al., 2015)               | 0.24  | 0.62  | 0.35  |  |
| 395 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=NC(CO3)c4ccc(O)cc4</chem><br>(Marson et al., 2015)               | 0.29  | 0.54  | 0.34  |  |
| 396 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=NC(CO3)c4ccnc4</chem><br>(Marson et al., 2015)                   | 0.26  | 0.58  | 0.25  |  |
| 397 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=N[C@H](CO3)Cc4cccc4</chem><br>(Marson et al., 2015)              | 0.20  | 0.50  | 0.57  |  |
| 398 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=NC[C@@H](O3)c4cccc4</chem><br>(Marson et al., 2015)              | 0.39  | 0.41  | 0.36  |  |
| 399 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC3=N[C@@H](CO3)Cc4c[nH]cn4</chem><br>(Marson et al., 2015)          | 0.13  | 0.89  | 0.48  |  |
| 400 | <chem>Fc1ccc(c(c1)N)NC(=O)c2ccc(cc2)NC(=O)NCc3cccc3</chem><br>(Zhu et al., 2017)                    | 0.772 | 0.11  | 0.41  |  |
| 401 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)Nc3cc(C(F)(F)F)ccc3</chem><br>(Zhu et al., 2017)               | 0.182 | 0.74  | 0.37  |  |
| 402 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)Nc3ccc(C(F)(F)F)cc3</chem><br>(Zhu et al., 2017)               | 0.190 | 0.72  | 0.29  |  |
| 403 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)Nc3ccc(Cl)cc3</chem><br>(Zhu et al., 2017)                     | 0.234 | 0.63  | 0.35  |  |
| 404 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)Nc3cc(Cl)c(F)cc3</chem><br>(Zhu et al., 2017)                  | 0.624 | 0.20  | 0.31  |  |
| 405 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)Nc3cc(C(F)(F)F)c(Cl)cc3</chem><br>(Zhu et al., 2017)           | 0.211 | 0.67  | 0.30  |  |
| 406 | <chem>Nc1cccc1NC(=O)c2ccc(cc2)CNC(=O)NCc3cccc3</chem><br>(Zhu et al., 2017)                         | 0.123 | 0.91  | 0.59  |  |
| 407 | <chem>Fc1ccc(c(c1)N)NC(=O)c2ccc(cc2)CNC(=O)NCc3cccc3</chem><br>(Zhu et al., 2017)                   | 1.14  | -0.06 | 0.034 |  |
| 408 | <chem>c1cccc(N)c1NC(=O)c2ccc(cc2)CNC3cc(C(C)C)Nc4nc(ccn4)-c5ccnc5</chem><br>(Mahboobi et al., 2009) | 0.208 | 0.68  | 0.83  |  |

|     |                                                                                                 |        |      |       |   |
|-----|-------------------------------------------------------------------------------------------------|--------|------|-------|---|
| 409 | c1ncccc1-<br>c(cn2)cnc2Nc3cc(ccc3)NC(=O)c4cccc(c4)C(=O)Nc5c(N)cccc5<br>(Mahboobi et al., 2009)  | 0.76   | 0.12 | 0.170 |   |
| 410 | c1ncccc1-<br>c(cn2)cnc2Nc3cc(ccc3C)NC(=O)c4cccc(c4)C(=O)Nc5c(N)cccc5<br>(Mahboobi et al., 2009) | 0.27   | 0.57 | 0.161 |   |
| 411 | c1ncccc1-<br>c2nc(sc2)Nc3cc(ccc3)NC(=O)c4cccc(c4)C(=O)Nc5c(N)cccc5<br>(Mahboobi et al., 2009)   | 0.23   | 0.64 | 0.77  |   |
| 412 | c1ncccc1-c2nc(sc2)Nc3cc(ccc3)NC(=O)c4ccc(s4)C(=O)Nc5c(N)cccc5<br>(Mahboobi et al., 2009)        | 0.47   | 0.33 | 0.16  |   |
| 413 | c1nccc(n12)ncc2-c(n3)ccnc3NCc4ccc(cc4)C(=O)Nc5ccccc5N<br>(Li et al., 2013)                      | 0.110  | 0.96 | 0.81  |   |
| 414 | c1cccc(n12)nc(C)c2-c(n3)ccnc3NCc4ccc(cc4)C(=O)Nc5ccccc5N<br>(Li et al., 2013)                   | 0.108  | 0.97 | 0.75  |   |
| 415 | c1ccnc(n12)nc(C)c2-c(n3)ccnc3NCc4ccc(cc4)C(=O)Nc5ccccc5N<br>(Li et al., 2013)                   | 0.127  | 0.90 | 0.64  |   |
| 416 | c1nccc(n12)nc(C)c2-c(n3)ccnc3NCc4ccc(cc4)C(=O)Nc5ccccc5N<br>(Li et al., 2013)                   | 0.097  | 1.01 | 0.69  |   |
| 417 | Nc1cccc1NC(=O)c(cc2)ccc2CCNc3nccc(n3)-c4c(C)nc(n45)cccc5<br>(Li et al., 2013)                   | 0.131  | 0.88 | 1.04  |   |
| 418 | Nc1cccc1NC(=O)c(cc2)ccc2CCNc3nccc(n3)-c4cnc(n45)nccc5<br>(Li et al., 2013)                      | 0.154  | 0.81 | 0.85  |   |
| 419 | c1cccc(n12)nc(C)c2-c(n3)ccnc3NCc4ccc(cc4)C(=O)Nc5cc(F)ccc5N<br>(Li et al., 2013)                | 0.097  | 1.01 | 0.77  |   |
| 420 | c1cccc(n12)nc(C)c2-c(n3)ccnc3NCc4ccc(cc4)C(=O)Nc5ccc(F)cc5N<br>(Li et al., 2013)                | 0.135  | 0.90 | 0.74  |   |
| 421 | c1c(Br)ccc(n12)nc(C)c2-c(n3)ccnc3NCc4ccc(cc4)C(=O)Nc5ccccc5N<br>(Li et al., 2013)               | 0.125  | 0.90 | 0.68  |   |
| 422 | c1ccncc1COC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccsc4<br>(Harrington et al., 2013)             | 0.0058 | 2.22 | 1.75  | * |
| 423 | c1ccncc1COC(=O)NCc2ccc(cc2)C(=O)Nc3c(O)ccc(c3)-c4ccccc4<br>(Harrington et al., 2013)            | 0.02   | 1.70 | 1.49  | * |
| 424 | CC(C)(C)OC(=O)NCc1ccc(cc1)C(=O)Nc2c(O)ccc(c2)-c3ccccc3<br>(Harrington et al., 2013)             | 0.07   | 1.15 | 1.50  |   |
| 425 | NCc1ccc(cc1)C(=O)Nc2c(O)ccc(c2)-c3ccccc3<br>(Harrington et al., 2013)                           | 0.028  | 1.55 | 1.23  | * |
| 426 | COC(=O)NCc1ccc(cc1)C(=O)Nc2cc(ccc2N)-c3ccccc3<br>(Harrington et al., 2013)                      | 0.017  | 1.77 | 1.34  | * |
| 427 | CCCOC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccccc3<br>(Harrington et al., 2013)                  | 0.029  | 1.54 | 1.36  | * |

|     |                                                                                                  |       |      |      |   |
|-----|--------------------------------------------------------------------------------------------------|-------|------|------|---|
| 428 | <chem>CC(C)COC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccccc3</chem><br>(Harrington et al., 2013)   | 0.045 | 1.35 | 1.35 |   |
| 429 | <chem>c1ccncc1CCC(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem><br>(Harrington et al., 2013)  | 0.011 | 1.96 | 1.49 | * |
| 430 | <chem>c1ccccc1COC(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem><br>(Harrington et al., 2013)  | 0.058 | 1.24 | 1.51 |   |
| 431 | <chem>CC(C)OC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3cccs3</chem><br>(Harrington et al., 2013)     | 0.019 | 1.72 | 1.30 | * |
| 432 | <chem>CCCOC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3cccs3</chem><br>(Harrington et al., 2013)       | 0.019 | 1.72 | 1.47 | * |
| 433 | <chem>CC(C)COC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3cccs3</chem><br>(Harrington et al., 2013)    | 0.031 | 1.51 | 1.23 | * |
| 434 | <chem>c1ccccc1OC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem><br>(Harrington et al., 2013)  | 0.077 | 1.11 | 1.15 |   |
| 435 | <chem>c1ccccc1COC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem><br>(Harrington et al., 2013) | 0.053 | 1.27 | 1.33 |   |
| 436 | <chem>CC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccccc3</chem><br>(Harrington et al., 2013)         | 0.018 | 1.74 | 1.33 | * |
| 437 | <chem>CCC(=O)NCc1ccc(cc1)C(=O)Nc2cc(ccc2N)-c3ccccc3</chem><br>(Harrington et al., 2013)          | 0.017 | 1.77 | 1.33 | * |
| 438 | <chem>CC(C)(C)C(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccccc3</chem><br>(Harrington et al., 2013)  | 0.025 | 1.60 | 1.11 | * |
| 439 | <chem>C1CCCCC1C(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem><br>(Harrington et al., 2013)    | 0.042 | 1.38 | 1.24 |   |
| 440 | <chem>C1CCCCC1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccccc4</chem><br>(Harrington et al., 2013)  | 0.021 | 1.68 | 1.27 | * |
| 441 | <chem>c1ccccc1CC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccccc4</chem><br>(Harrington et al., 2013) | 0.072 | 1.14 | 1.21 |   |
| 442 | <chem>C1CCCCC1C(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccs4</chem><br>(Harrington et al., 2013)     | 0.034 | 1.47 | 1.12 | * |
| 443 | <chem>C1CCCCC1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem><br>(Harrington et al., 2013)   | 0.020 | 1.70 | 1.23 | * |
| 444 | <chem>c1ccncc1CC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccccc4</chem><br>(Harrington et al., 2013) | 0.019 | 1.72 | 1.65 | * |
| 445 | <chem>c1ccncc1CCC(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem><br>(Harrington et al., 2013)  | 0.016 | 1.79 | 1.50 | * |
| 446 | <chem>c1cnccc1CC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem><br>(Harrington et al., 2013)  | 0.018 | 1.74 | 1.24 | * |
| 447 | <chem>c1ccncc1CCC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem><br>(Harrington et al., 2013) | 0.013 | 1.89 | 1.51 | * |
| 448 | <chem>C1CCN[C@@H]1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem>                            | 0.018 | 1.74 | 1.44 | * |

|     |                                                                                                    |        |      |      |   |
|-----|----------------------------------------------------------------------------------------------------|--------|------|------|---|
|     | (Harrington et al., 2013)                                                                          |        |      |      |   |
| 449 | <chem>C1CCN[C@@H]1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccc4</chem><br>(Harrington et al., 2013) | 0.024  | 1.62 | 1.26 | * |
| 450 | <chem>c1ccnc1COC(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccc4</chem><br>(Harrington et al., 2013)      | 0.020  | 1.70 | 1.27 | * |
| 451 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccc4</chem><br>(Harrington et al., 2013)            | 0.010  | 2    | 1.61 | * |
| 452 | <chem>c1cnccc1N(C)Cc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccc4</chem><br>(Harrington et al., 2013)         | 0.010  | 2    | 2.02 | * |
| 453 | <chem>Cc1n(C)ncc1CNCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccc4</chem><br>(Harrington et al., 2013)        | 0.013  | 1.89 | 1.97 | * |
| 454 | <chem>c1cccc1-c2ccc(N)c(c2)NC(=O)c3ccc(cc3)CN(C)CCCNC</chem><br>(Harrington et al., 2013)          | 0.018  | 1.74 | 1.81 | * |
| 455 | <chem>c1cccc1-c2ccc(N)c(c2)NC(=O)c3ccc(cc3)CNCC(C)C</chem><br>(Harrington et al., 2013)            | 0.035  | 1.45 | 1.30 | * |
| 456 | <chem>c1cccc1-c2ccc(N)c(c2)NC(=O)c3ccc(cc3)CNC(C)COC</chem><br>(Harrington et al., 2013)           | 0.023  | 1.64 | 1.40 | * |
| 457 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccc4F</chem><br>(Harrington et al., 2013)           | 0.023  | 1.64 | 1.63 | * |
| 458 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccc(F)c4</chem><br>(Harrington et al., 2013)        | 0.027  | 1.57 | 1.67 | * |
| 459 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cc(cs4)C</chem><br>(Harrington et al., 2013)         | 0.015  | 1.82 | 1.46 | * |
| 460 | <chem>c1cccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNC4CC4</chem><br>(Harrington et al., 2013)             | 0.076  | 1.12 | 1.22 |   |
| 461 | <chem>c1cccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3O)-c4cccc4</chem><br>(Harrington et al., 2013)             | 0.089  | 1.05 | 1.2  |   |
| 462 | <chem>c1cccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNCC4CC4</chem><br>(Harrington et al., 2013)            | 0.072  | 1.14 | 1.33 |   |
| 463 | <chem>c1cnccc1CNCc2ccc(cc2)C(=O)Nc3cc(ccc3O)-c4cccc4</chem><br>(Harrington et al., 2013)           | 0.032  | 1.49 | 1.34 | * |
| 464 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3O)-c4cccc4</chem><br>(Harrington et al., 2013)            | 0.0099 | 2.0  | 1.53 | * |
| 465 | <chem>c1cccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNCCNC(C)C</chem><br>(Harrington et al., 2013)          | 0.044  | 1.36 | 1.72 |   |
| 466 | <chem>c1cccc1-c(ccc2O)cc2NC(=O)c3ccc(cc3)CNCCC(C)C</chem><br>(Harrington et al., 2013)             | 0.100  | 1.00 | 1.33 |   |
| 467 | <chem>c1cccc1-c2cc(c(O)cc2)NC(=O)c3ccc(cc3)CN(C)CC</chem><br>(Harrington et al., 2013)             | 0.031  | 1.51 | 1.84 | * |
| 468 | <chem>c1cccc1-c2cc(c(O)cc2)NC(=O)c3ccc(cc3)CN(C)CCCNC</chem><br>(Harrington et al., 2013)          | 0.018  | 1.74 | 1.65 | * |

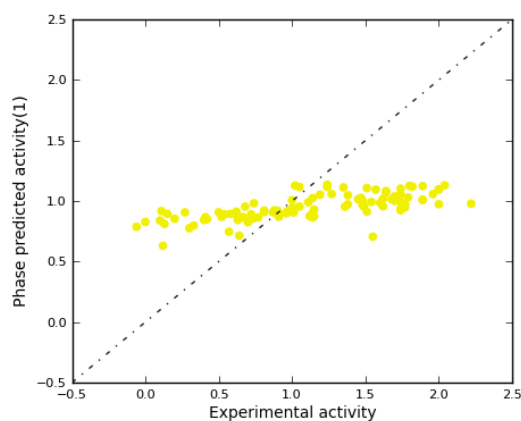
|     |                                                                                                           |        |      |      |   |
|-----|-----------------------------------------------------------------------------------------------------------|--------|------|------|---|
| 469 | <chem>c1cnccc1N(C)Cc2ccc(cc2)C(=O)Nc3c(O)ccc(c3)-c4ccccc4</chem><br>(Harrington et al., 2013)             | 0.013  | 1.89 | 2.26 | * |
| 470 | <chem>c1cnccc1CCN(C)Cc2ccc(cc2)C(=O)Nc3c(O)ccc(c3)-c4ccccc4</chem><br>(Harrington et al., 2013)           | 0.033  | 1.48 | 1.76 | * |
| 471 | <chem>c1cccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNCCN</chem><br>(Harrington et al., 2013)                      | 0.072  | 1.14 | 1.43 |   |
| 472 | <chem>c1cccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNCCCc4cnccc4</chem><br>(Harrington et al., 2013)              | 0.100  | 1.00 | 1.40 |   |
| 473 | <chem>c1cccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNCC4CCN(C4)C</chem><br>(Harrington et al., 2013)              | 0.180  | 0.74 | 0.73 |   |
| 474 | <chem>c1cccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNCCn4nccc4</chem><br>(Harrington et al., 2013)                | 0.033  | 1.48 | 1.95 | * |
| 475 | <chem>c1cccc1-c2cc(c(O)cc2)NC(=O)c3ccc(cc3)CN(C)Cc4cn(C)nc4</chem><br>(Harrington et al., 2013)           | 0.024  | 1.62 | 1.88 | * |
| 476 | <chem>c1cccc1[C@@H](COC2=O)N2Cc3ccc(cc3)C(=O)Nc4c(N)ccc(c4)-c5ccccc5</chem><br>(Harrington et al., 2013)  | 0.064  | 1.19 | 1.27 |   |
| 477 | <chem>c1cccc1C[C@H](COC2=O)N2Cc3ccc(cc3)C(=O)Nc4c(N)ccc(c4)-c5ccccc5</chem><br>(Harrington et al., 2013)  | 0.089  | 1.05 | 1.27 |   |
| 478 | <chem>c1cccc1C[C@@H](COC2=O)N2Cc3ccc(cc3)C(=O)Nc4c(N)ccc(c4)-c5ccccc5</chem><br>(Harrington et al., 2013) | 0.096  | 1.02 | 1.31 |   |
| 479 | <chem>c1cccc1C[C@H](COC2=O)N2Cc3ccc(cc3)C(=O)Nc4c(N)ccc(c4)-c5ccccc5</chem><br>(Harrington et al., 2013)  | 0.058  | 1.24 | 1.36 |   |
| 480 | <chem>Cn1nnc(c1)CN(C(=O)C)Cc(cc2)ccc2C(=O)Nc3c(N)ccc(c3)-c4sccc4</chem><br>(Harrington et al., 2013)      | 0.0095 | 2.04 | 1.80 | * |
| 481 | <chem>OC(=O)CNCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3cccs3</chem><br>(Harrington et al., 2013)                  | 0.034  | 1.47 | 1.46 | * |
| 482 | <chem>OC(=O)CNCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccsc3</chem><br>(Harrington et al., 2013)                  | 0.042  | 1.38 | 1.63 |   |
| 483 | <chem>c1ccncc1CN(C(=O)[O-])Cc2ccc(cc2)C(=O)Nc(c3N)ccc(cc3)-c4ccccc4</chem><br>(Harrington et al., 2013)   | 0.016  | 1.80 | 1.51 | * |

**Table S3.** Active compounds used for generating a decoys set.

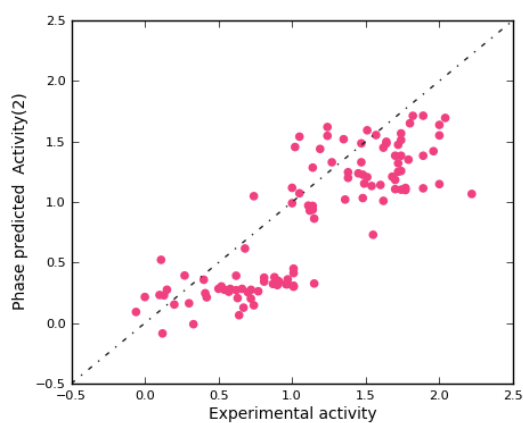
| Compound |                                                                                          |
|----------|------------------------------------------------------------------------------------------|
| 1        | <chem>C1CCN1Cc(cn2)cc(C#N)c2-c3ccc(cc3)C(=O)Nc4c(N)cccc4</chem>                          |
| 2        | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C#N)cc(cn3)CN4CCN(CC4)CC</chem>                    |
| 3        | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C#N)cc(cn3)CN4CCN(CC4)C(C)C</chem>                 |
| 4        | <chem>c1ccsc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem>                                  |
| 5        | <chem>c1ccsc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem>                                  |
| 6        | <chem>c1cccc1-c(c2)ccc(O)c2NC(=O)c3ccc(cc3)CNc4ccncc4</chem>                             |
| 7        | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CNc4ccncc4</chem>                             |
| 8        | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(C)c4ccncc4</chem>                          |
| 9        | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem>                      |
| 10       | <chem>s1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem>                      |
| 11       | <chem>c1sccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem>                      |
| 12       | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem>                  |
| 13       | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>                         |
| 14       | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5ccsc5</chem>                         |
| 15       | <chem>C1CN(C(=O)C)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>                 |
| 16       | <chem>C1CN(S(=O)(=O)C)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>             |
| 17       | <chem>OCCN(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>                    |
| 18       | <chem>CC(=O)N(C1)CCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>                 |
| 19       | <chem>C1NC(=O)NC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>                     |
| 20       | <chem>C1OC(=O)NC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>                     |
| 24       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3cccc(c3)C#N)C(=O)Nc4cc(C#N)ccc4</chem>           |
| 27       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C(C(=O)Nc3cc(OC)ccc3)C(=O)Nc4cc(OC)ccc4</chem>             |
| 29       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C(C(=O)Nc(cc3)cc(c34)OCCO4)C(=O)Nc(c5)ccc(c56)OCCO6</chem> |
| 88       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3ncc(s3)CN4CCCC4</chem>                                  |
| 90       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3ncc(s3)CNCCC</chem>                                     |
| 94       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)Cc4ccc(cc4)C(=O)NCC</chem>                       |
| 95       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)C3CCN(CC3)Cc4ccc(cc4)C(=O)NC</chem>                        |
| 96       | <chem>Nc1cccc1NC(=O)c2ccc(cc2)-c3c(C#N)cc(cn3)N</chem>                                   |
| 97       | <chem>C1CCN1Cc(cn2)cc(C)c2-c3ccc(cc3)C(=O)Nc4c(N)cccc4</chem>                            |
| 98       | <chem>C1CCN1Cc(cn2)cc(Cl)c2-c3ccc(cc3)C(=O)Nc4c(N)cccc4</chem>                           |
| 100      | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C)cc(cn3)CN4CCN(CC4)CC</chem>                      |
| 101      | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(Cl)cc(cn3)CN4CCN(CC4)CC</chem>                     |
| 103      | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(C)cc(cn3)CN4CCN(CC4)C(C)C</chem>                   |
| 104      | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(Cl)cc(cn3)CN4CCN(CC4)C(C)C</chem>                  |
| 105      | <chem>c1cccc(N)c1NC(=O)c(cc2)ccc2-c3c(F)cc(cn3)CN4CCN(CC4)C(C)C</chem>                   |
| 138      | <chem>c1cccc1-c(ccc2O)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem>                                  |
| 139      | <chem>c1cccc1-c(ccc2N)cc2NC(=O)c3ccc(cc3)NC(=O)C</chem>                                  |
| 150      | <chem>c1cccc1-c(c2)ccc(O)c2NC(=O)c3ccc(cc3)CNCc4cnccc4</chem>                            |

|     |                                                                             |
|-----|-----------------------------------------------------------------------------|
| 151 | <chem>c1cccc1-c(c2)ccc(O)c2NC(=O)c3ccc(cc3)CNC(C)c4ccncc4</chem>            |
| 157 | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CNCc4c(C)n(C)nc4</chem>          |
| 158 | <chem>c1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem>         |
| 159 | <chem>c1cccc(F)c1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem>     |
| 161 | <chem>c1cc(F)ccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)CN(CC4)CCC45NCCC5</chem>     |
| 162 | <chem>s1cccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem>     |
| 163 | <chem>c1cccc(F)c1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem> |
| 164 | <chem>c1cc(F)ccc1-c(c2)ccc(N)c2NC(=O)c3ccc(cc3)C(=O)N(CC4)CCC45NCCC5</chem> |
| 177 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5ccccc5</chem>           |
| 179 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cc[nH]n5</chem>         |
| 180 | <chem>C1CNCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cn(cn5)C</chem>         |
| 181 | <chem>CCNC(=O)N(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>  |
| 182 | <chem>n1ccnc1N(CC2)CC23CCN(CC3)c(nc4)ccc4C(=O)Nc5cc(ccc5N)-c6cccs6</chem>   |
| 183 | <chem>FC(F)(F)CN(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem> |
| 184 | <chem>OC(=O)CN(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>   |
| 185 | <chem>NC(=O)CN(CC1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>   |
| 186 | <chem>CC(=O)N(C1)CCC12CN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>     |
| 187 | <chem>CC(=O)N(C1)CC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>     |
| 188 | <chem>C1CCN(C(=O)C)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>    |
| 189 | <chem>C1CCC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>        |
| 190 | <chem>C1CCC(O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>         |
| 191 | <chem>C1CNC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>        |
| 192 | <chem>C1NC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>         |
| 193 | <chem>C1C(=O)NCC12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>        |
| 194 | <chem>N1CNC(=O)C12CCN(CC2)c(nc3)ccc3C(=O)Nc4cc(ccc4N)-c5cccs5</chem>        |
| 304 | <chem>c1ncccc1C(=O)NCCCCCCC(=O)Nc2cc(ccc2N)-c3cccs3</chem>                  |
| 422 | <chem>c1cnccc1COC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccsc4</chem>         |
| 423 | <chem>c1cnccc1COC(=O)NCc2ccc(cc2)C(=O)Nc3c(O)ccc(c3)-c4ccccc4</chem>        |
| 425 | <chem>NCc1ccc(cc1)C(=O)Nc2c(O)ccc(c2)-c3ccccc3</chem>                       |
| 426 | <chem>COC(=O)NCc1ccc(cc1)C(=O)Nc2cc(ccc2N)-c3ccccc3</chem>                  |
| 427 | <chem>CCCOC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccccc3</chem>              |
| 429 | <chem>c1cnccc1CCC(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem>          |
| 431 | <chem>CC(C)OC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3cccs3</chem>             |
| 432 | <chem>CCCOC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3cccs3</chem>               |
| 433 | <chem>c1cccc1OC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem>           |
| 436 | <chem>CC(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccccc3</chem>                 |
| 437 | <chem>CCC(=O)NCc1ccc(cc1)C(=O)Nc2cc(ccc2N)-c3ccccc3</chem>                  |
| 438 | <chem>CC(C)(C)C(=O)NCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3ccccc3</chem>          |
| 440 | <chem>C1CCCC1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccccc4</chem>           |
| 442 | <chem>C1CCCCC1C(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cccs4</chem>             |

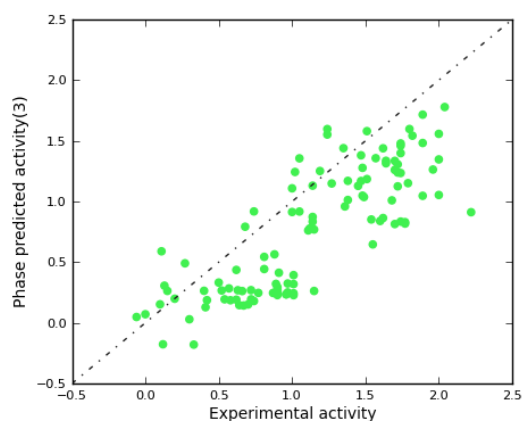
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|-----|---------------------------------------------------------------------------|
| 443 | <chem>C1CCCC1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem>          |
| 444 | <chem>c1ccnc1CC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccccc4</chem>        |
| 445 | <chem>c1ccncc1CCC(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem>        |
| 446 | <chem>c1cnccc1CC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem>        |
| 447 | <chem>c1ccncc1CCC(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem>       |
| 448 | <chem>C1CCN[C@@H]1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4cccs4</chem>     |
| 449 | <chem>C1CCN[C@@H]1C(=O)NCc2ccc(cc2)C(=O)Nc3c(N)ccc(c3)-c4ccccc4</chem>    |
| 450 | <chem>c1ccnc1COC(=O)NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem>         |
| 451 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem>               |
| 452 | <chem>c1cnccc1N(C)Cc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem>            |
| 453 | <chem>Cc1n(C)ncc1CNCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4</chem>           |
| 454 | <chem>c1ccccc1-c2ccc(N)c(c2)NC(=O)c3ccc(cc3)CN(C)CCCNC</chem>             |
| 455 | <chem>c1ccccc1-c2ccc(N)c(c2)NC(=O)c3ccc(cc3)CNCC(C)C</chem>               |
| 456 | <chem>c1ccccc1-c2ccc(N)c(c2)NC(=O)c3ccc(cc3)CNC(C)COC</chem>              |
| 457 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4F</chem>              |
| 458 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4ccccc4(F)c4</chem>          |
| 459 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3N)-c4cc(cs4)C</chem>             |
| 463 | <chem>c1ccncc1CNCc2ccc(cc2)C(=O)Nc3cc(ccc3O)-c4ccccc4</chem>              |
| 464 | <chem>c1cnccc1NCc2ccc(cc2)C(=O)Nc3cc(ccc3O)-c4ccccc4</chem>               |
| 467 | <chem>c1ccccc1-c2cc(c(O)cc2)NC(=O)c3ccc(cc3)CN(C)CC</chem>                |
| 468 | <chem>c1ccccc1-c2cc(c(O)cc2)NC(=O)c3ccc(cc3)CN(C)CCCNC</chem>             |
| 469 | <chem>c1cnccc1N(C)Cc2ccc(cc2)C(=O)Nc3c(O)ccc(c3)-c4ccccc4</chem>          |
| 470 | <chem>c1cnccc1CCN(C)Cc2ccc(cc2)C(=O)Nc3c(O)ccc(c3)-c4ccccc4</chem>        |
| 474 | <chem>c1ccccc1-c2ccc(O)c(c2)NC(=O)c3ccc(cc3)CNCCn4nccc4</chem>            |
| 475 | <chem>c1ccccc1-c2cc(c(O)cc2)NC(=O)c3ccc(cc3)CN(C)Cc4cn(C)nc4</chem>       |
| 480 | <chem>Cn1nnc(c1)CN(C(=O)C)Cc(cc2)ccc2C(=O)Nc3c(N)ccc(c3)-c4sccc4</chem>   |
| 481 | <chem>OC(=O)CNCc1ccc(cc1)C(=O)Nc2c(N)ccc(c2)-c3cccs3</chem>               |
| 483 | <chem>c1ccncc1CN(C(=O)[O-])Cc2ccc(cc2)C(=O)Nc(c3N)cc(cc3)-c4ccccc4</chem> |



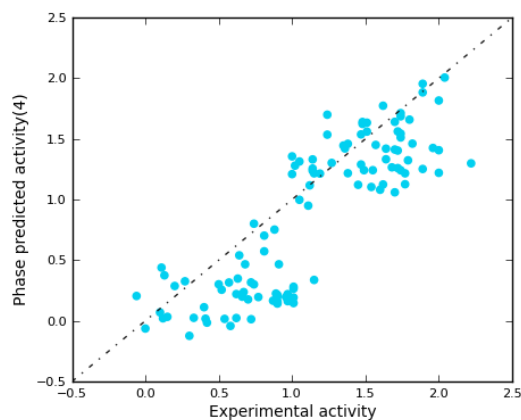
**Figure S1.** Scatter plot for the predicted (phase predicted activity) and observed (experimental activity)  $pIC_{50}$  values ( $\mu M$ ) as calculated by the 3D-QSAR model with 1 factor applied to the external test set ( $r^2_{ext\_ts} = 0.421$ ).



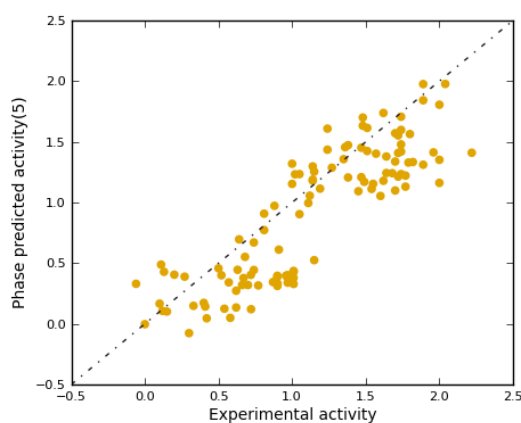
**Figure S2.** Scatter plot for the predicted (phase predicted activity) and observed (experimental activity)  $pIC_{50}$  values ( $\mu M$ ) as calculated by the 3D-QSAR model with 2 factors applied to the external test set ( $r^2_{ext\_ts} = 0.698$ ).



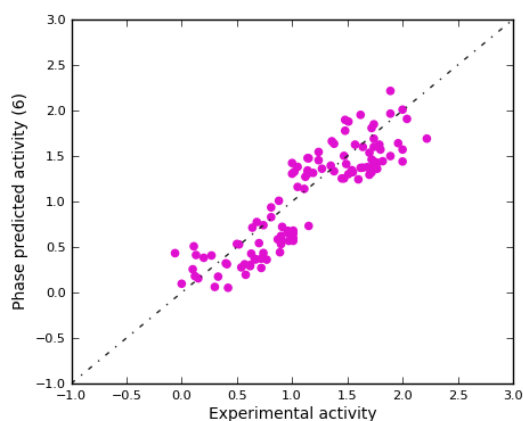
**Figure S3.** Scatter plot for the predicted (phase predicted activity) and observed (experimental activity)  $pIC_{50}$  values ( $\mu M$ ) as calculated by the 3D-QSAR model with 3 factors applied to the external test set ( $r^2_{ext\_ts} = 0.657$ ).



**Figure S4.** Scatter plot for the predicted (phase predicted activity) and observed (experimental activity)  $pIC_{50}$  values ( $\mu M$ ) as calculated by the 3D-QSAR model with 4 factors applied to the external test set ( $r^2_{\text{ext\_ts}} = 0.712$ ).



**Figure S5.** Scatter plot for the predicted (phase predicted activity) and observed (experimental activity)  $pIC_{50}$  values ( $\mu M$ ) as calculated by the 3D-QSAR model with 5 factors applied to the external test set ( $r^2_{\text{ext\_ts}} = 0.735$ ).



**Figure S6.** Scatter plot for the predicted (phase predicted activity) and observed (experimental activity)  $pIC_{50}$  values ( $\mu M$ ) as calculated by the 3D-QSAR model with 6 factors applied to the external test set ( $r^2_{\text{ext\_ts}} = 0.787$ ).

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