

Supplementary Figures

Figure S1. Selection of the relevant datasets (detailed pipeline)

Figure S2. Minor portion of DEGs is shared among multiple datasets. While most of the DEGs are unique to a single dataset ($N = 1$ on x-axes), a decreasing number of shared DEGs is identified as the number of overlapped datasets increases. (a) Number of shared DEGs obtained from each dataset (**Table S1**); (b) N of shared DEGs obtained from each group of datasets (three cell lines with two different MOI and for a combination of NHBE cells and hBO, **Table S2**)

Figure S3. The PCA score plots for the three cell lines with two different MOIs and for a combination of NHBE cells and hBO. (a) A549-ACE2; (b) Calu-3; (c) A549; (d) NHBE and hBO

Figure S4. Hierarchical clustering of various biosamples based on transcriptomic signature changes upon SARS-CoV-2 infection

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Figure S6. Final list of consensus DEGs upon SARS-CoV-2 infection

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Figure S12. Hierarchical clustering of 37 drug candidates based on combined properties (pharmacological class and current indication, mechanism of action (MOA), cellular location, protein superfamilies of drug targets, and biological pathways in overlap between pathways regulated by 37 drug candidates and pathways affected by SARS-CoV-2 virus)

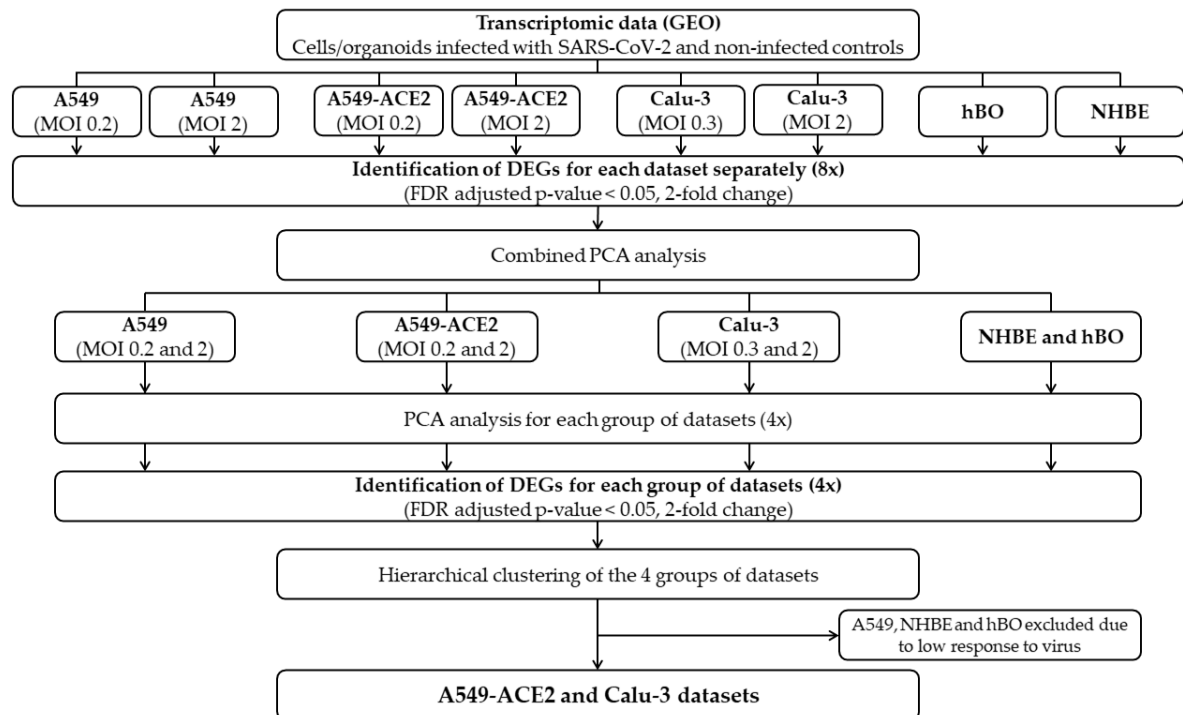
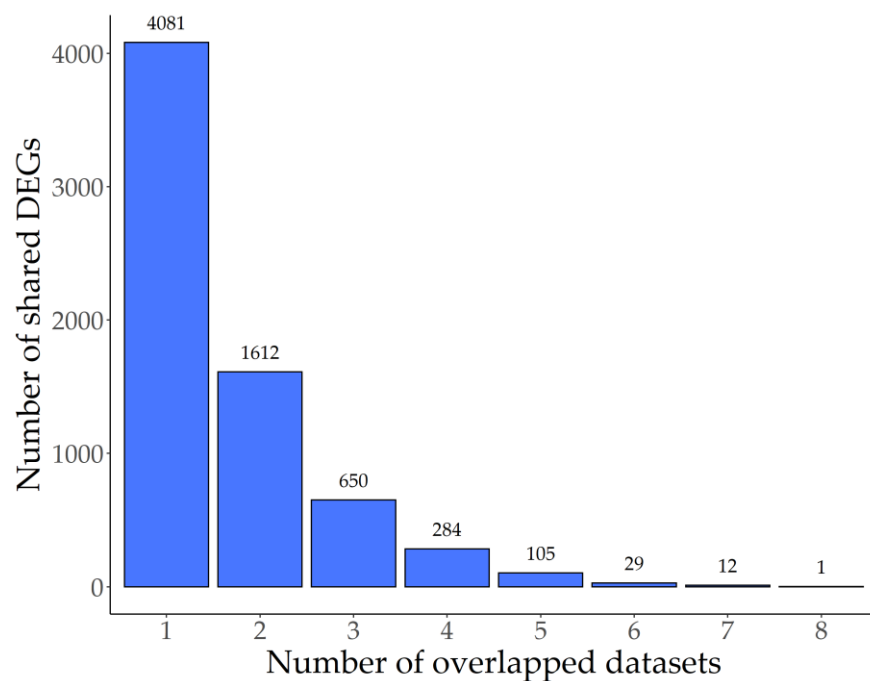
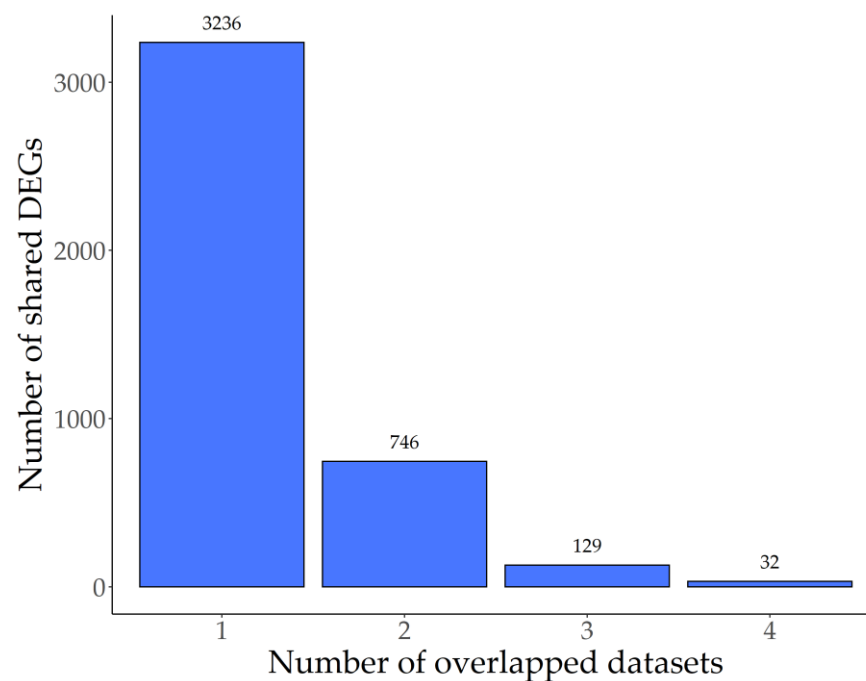


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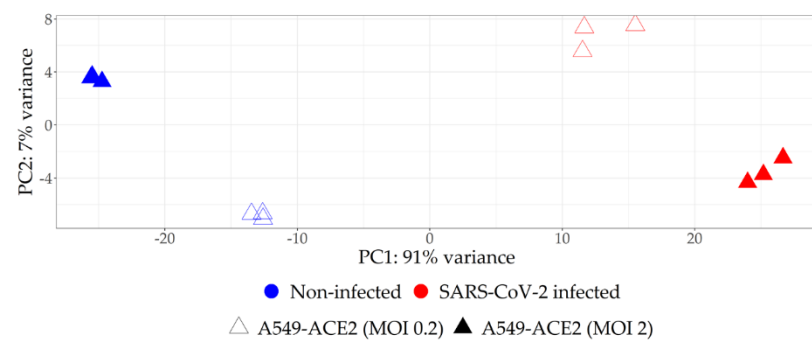


(a)

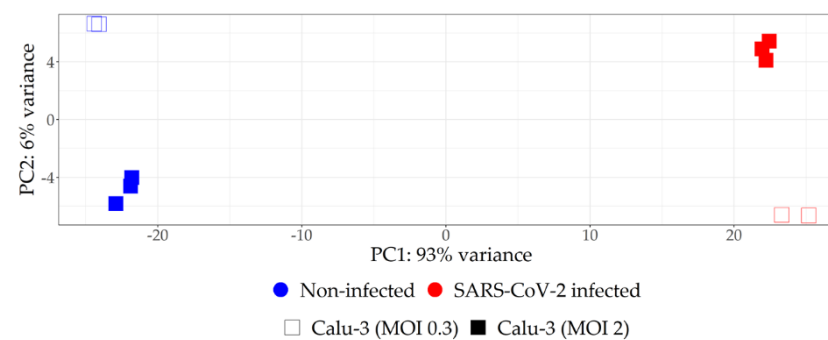


(b)

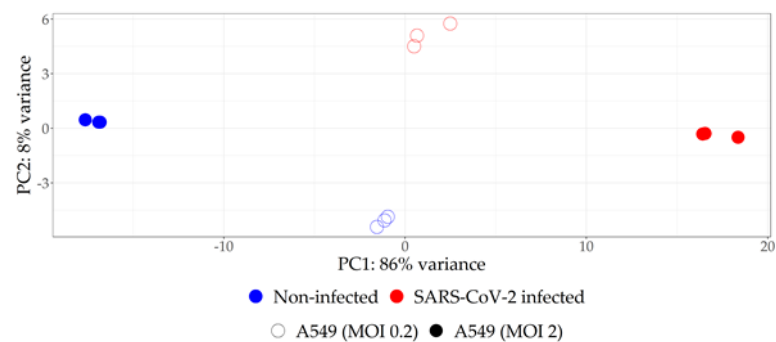
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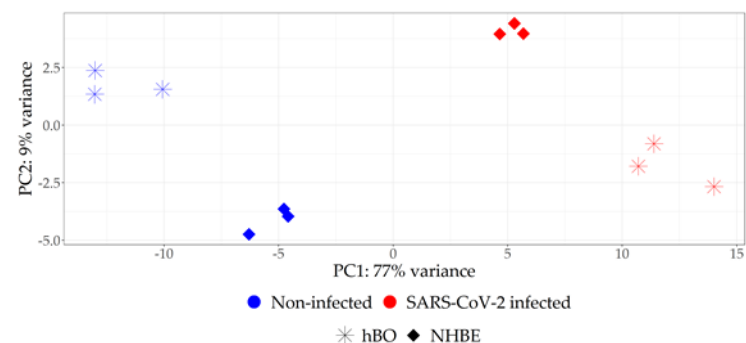
(a)



(b)



(c)



(d)

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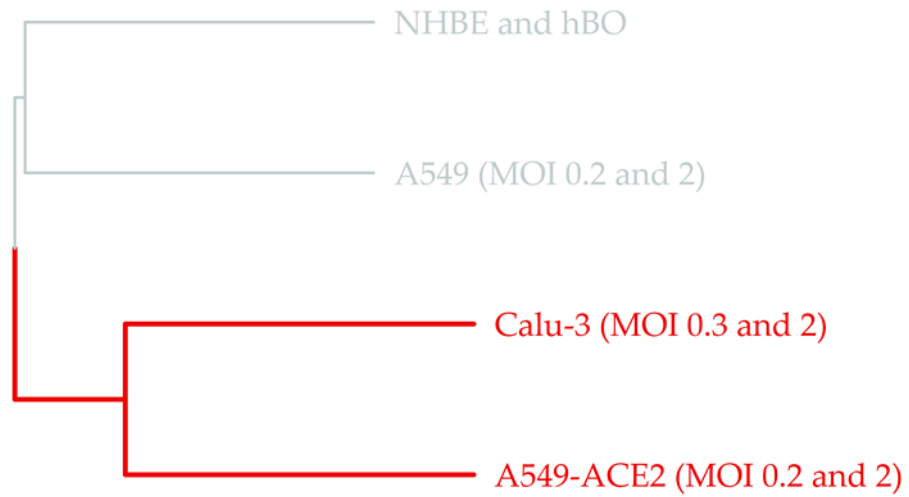


Figure S4. Hierarchical clustering of various biosamples based on transcriptomic signature changes upon SARS-CoV-2 infection

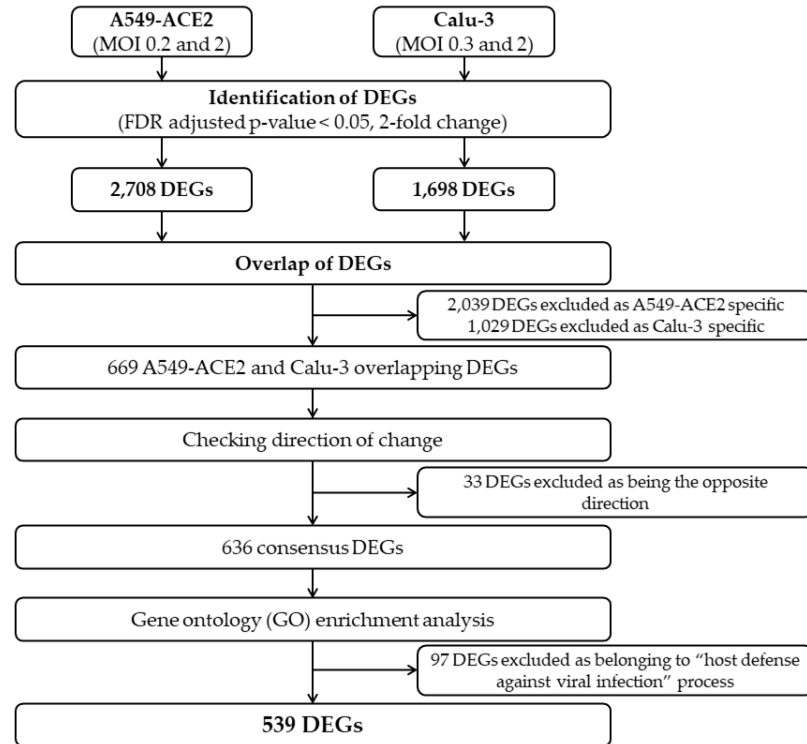


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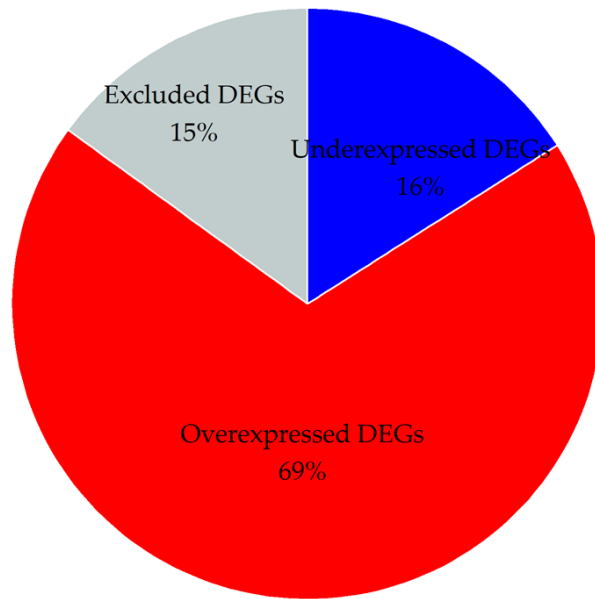


Figure S6. Final list of consensus DEGs upon SARS-CoV-2 infection

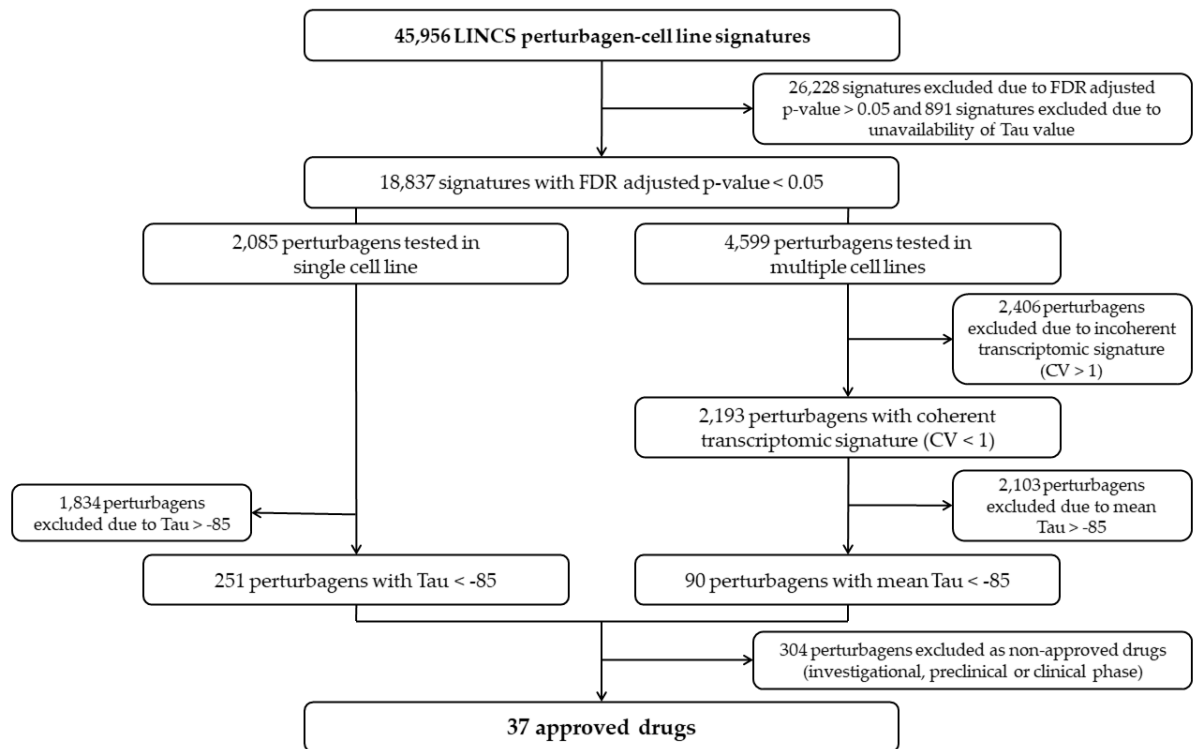
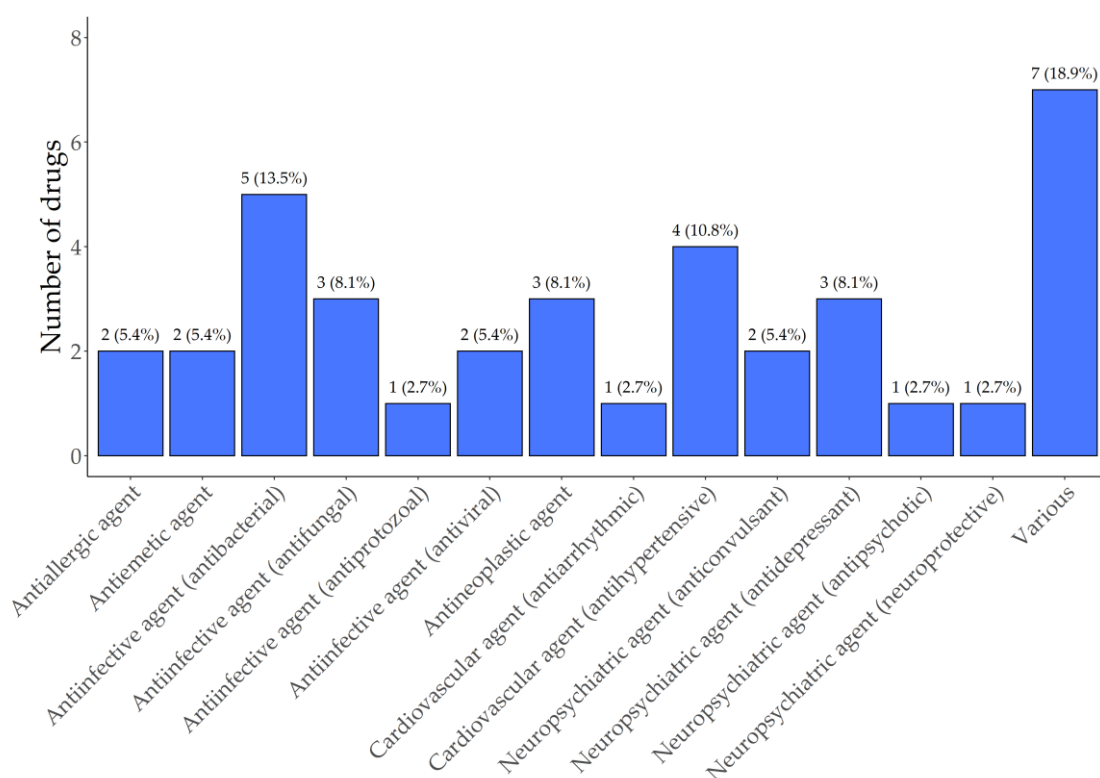
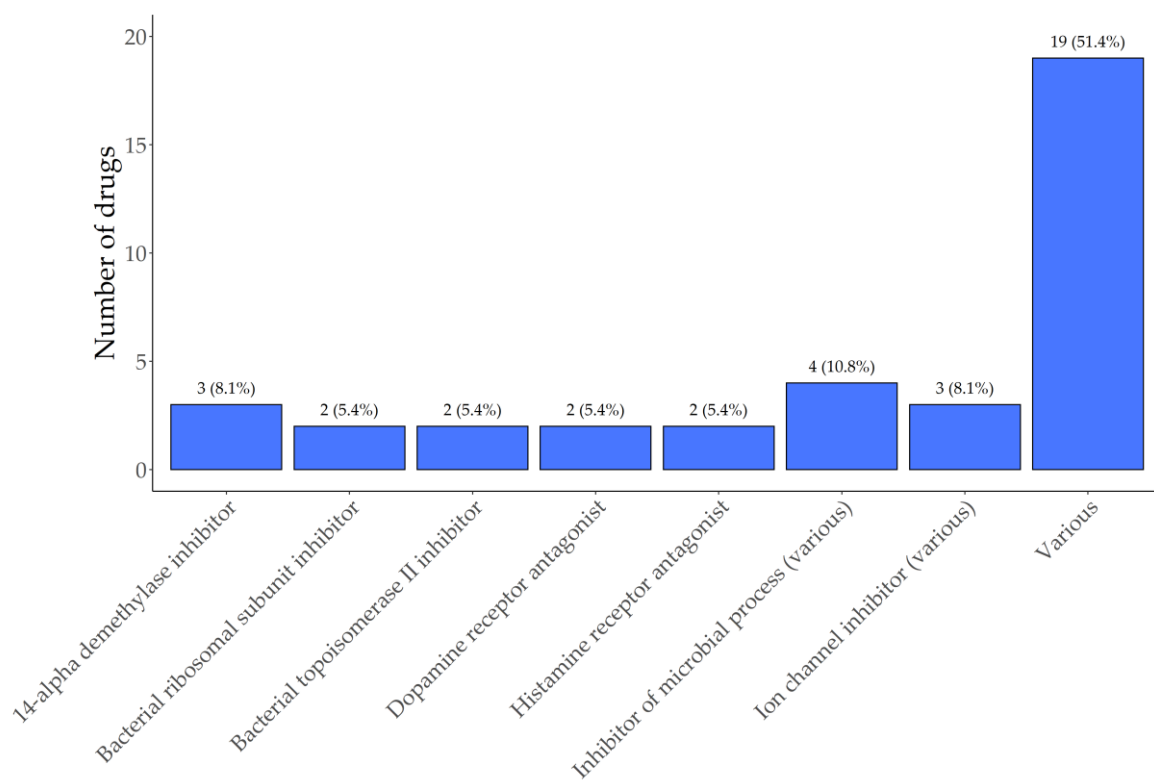


Figure S7. Selection of the drugs (detailed pipeline)



(a)



(b)

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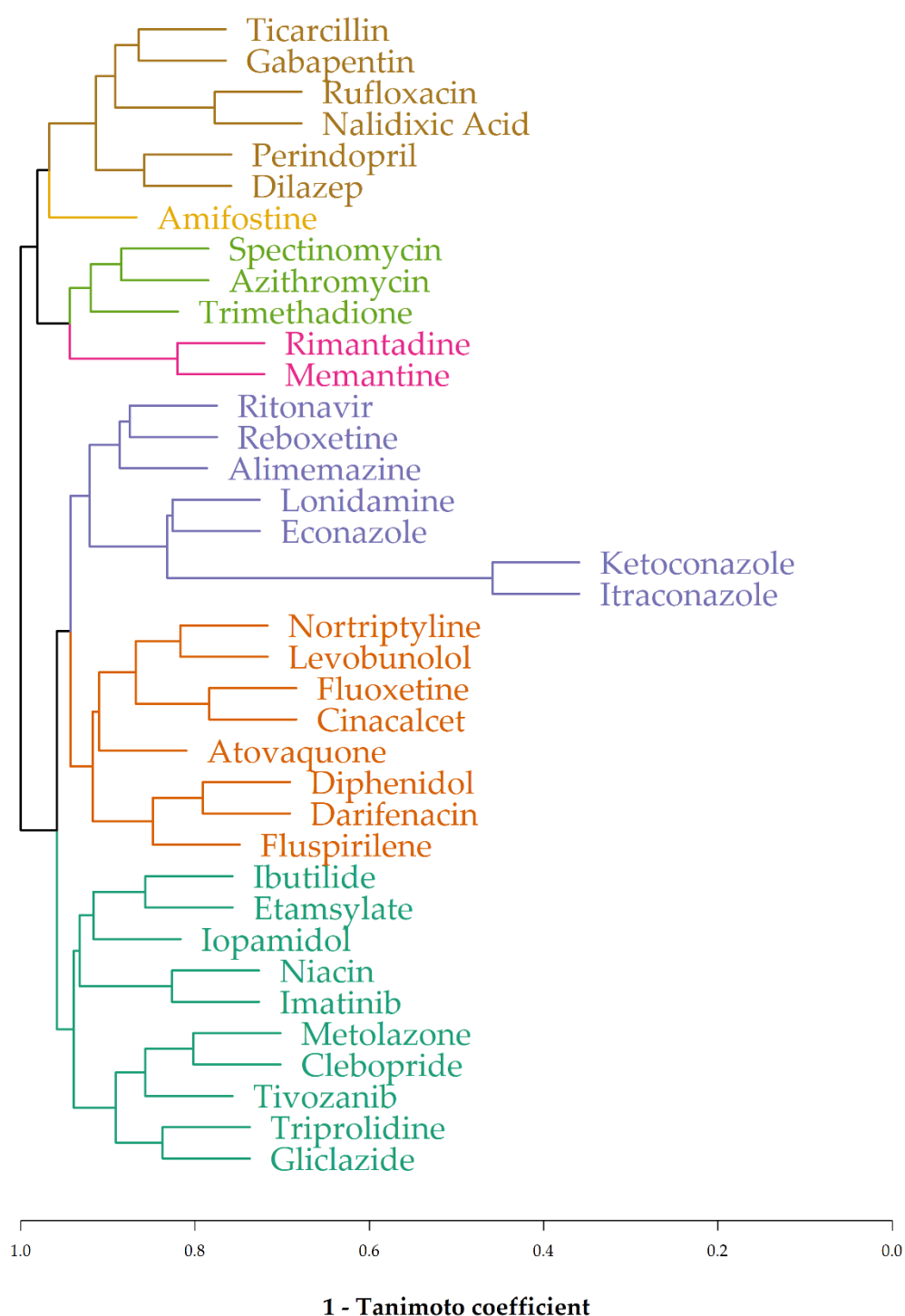
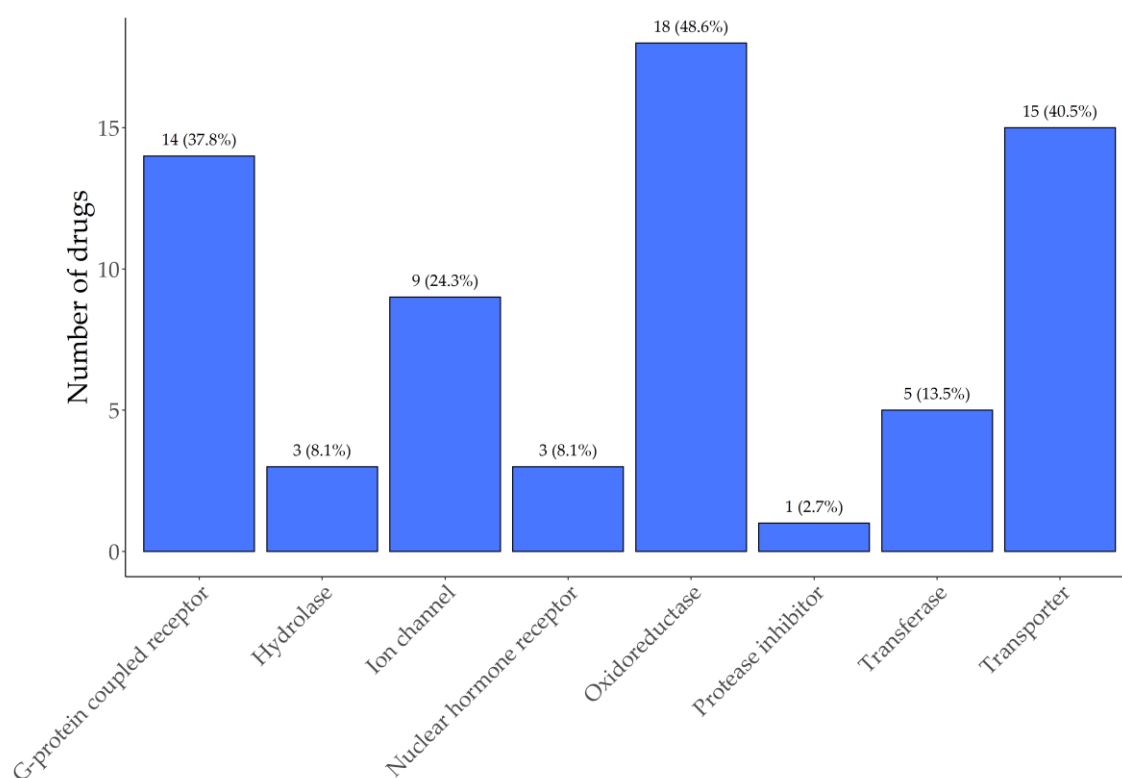
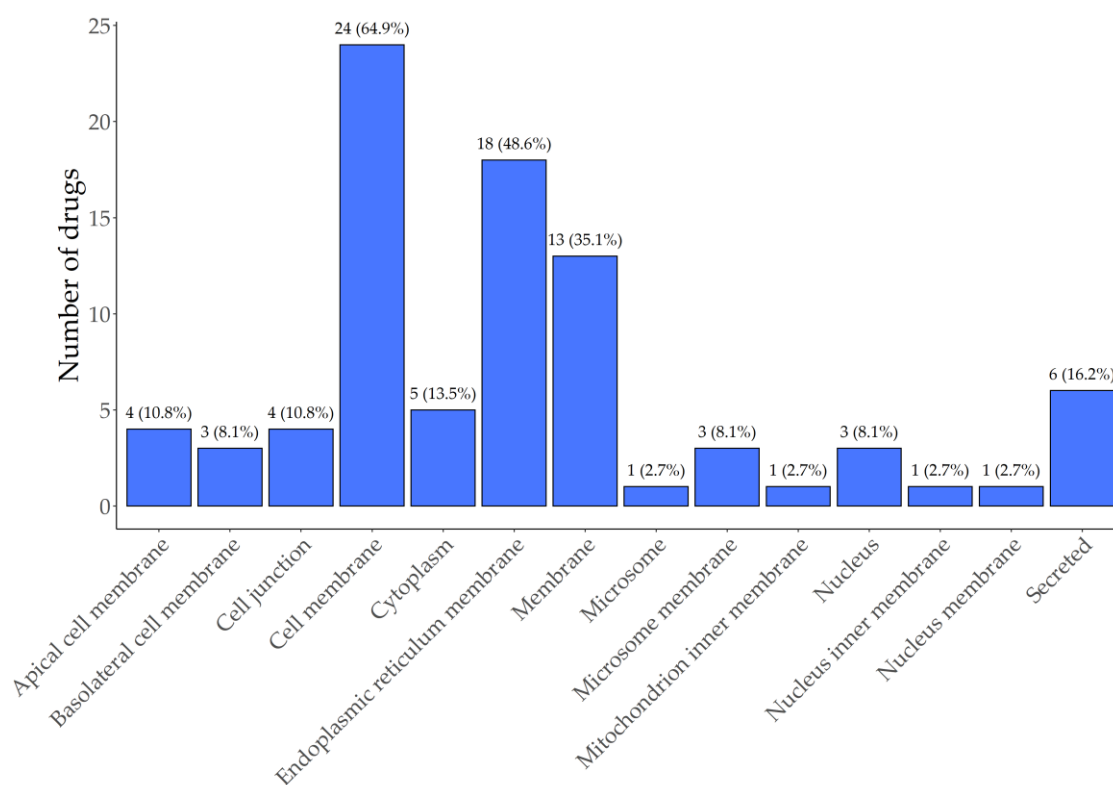


Figure S9. Hierarchical clustering of 37 drug candidates based on molecular structure



(a)



(b)

Figure S11. Distribution of 37 drug candidates based on drug target properties. **(a)** Protein superfamilies of drug target; **(b)** Cellular location of drug target

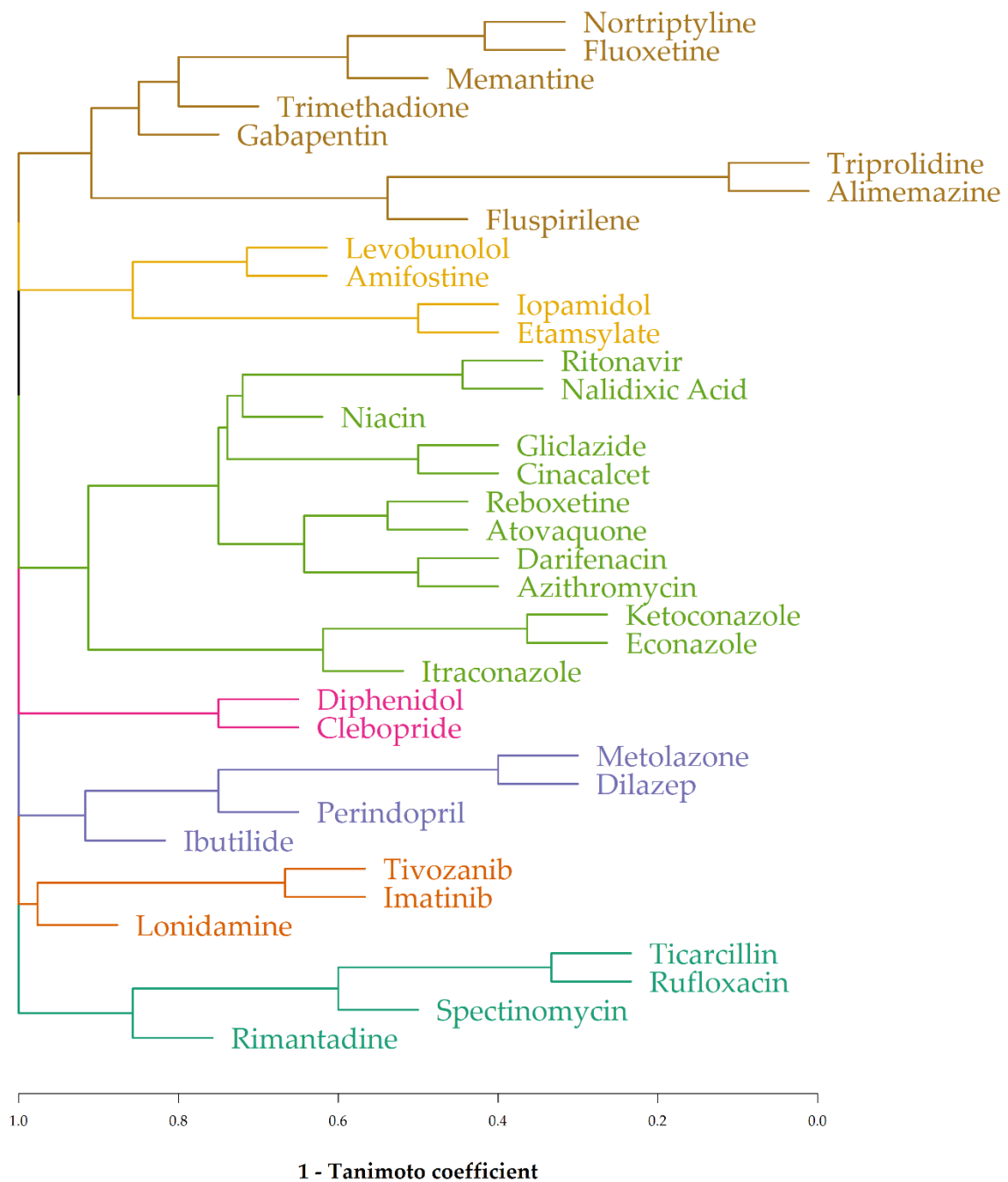


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