

3-Hydroxytanshinone Inhibits the Activity of Hypoxia-Inducible Factor 1- α by Interfering with the Function of α -Enolase in the Glycolytic Pathway

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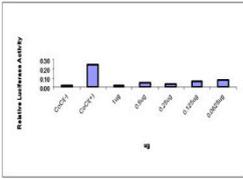
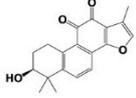
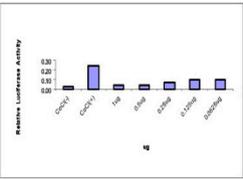
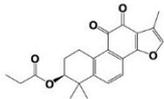
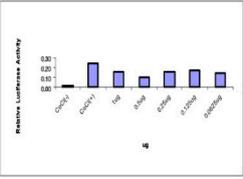
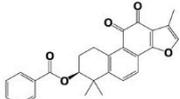
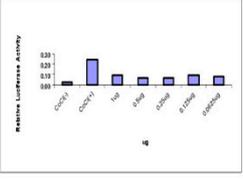
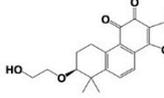
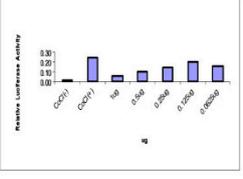
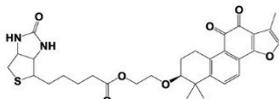
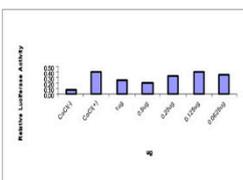
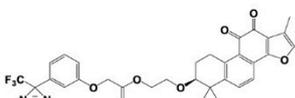
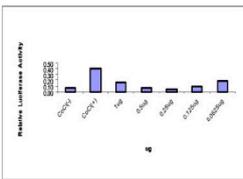
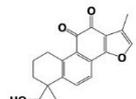
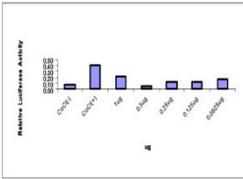
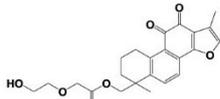
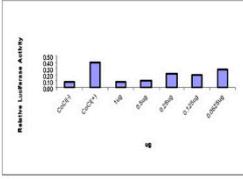
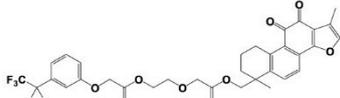
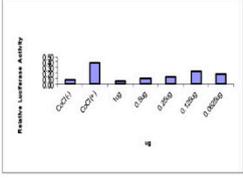
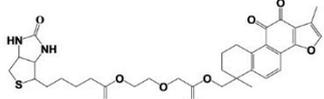
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3-Hydroxytanshinone			C19H18O4 Mol. Wt.: 310.34
(S)-1,6,6-trimethyl-10,11-dioxo-6,7,8,9,10,11-hexahydrophenanthro[1,2-b]furan-7-yl propionate			C22H22O5 Mol. Wt.: 366.41
(S)-1,6,6-trimethyl-10,11-dioxo-6,7,8,9,10,11-hexahydrophenanthro[1,2-b]furan-7-yl benzoate			C26H22O5 Mol. Wt.: 414.45
(S)-7-(2-hydroxyethoxy)-1,6,6-trimethyl-6,7,8,9-tetrahydrophenanthro[1,2-b]furan-10,11-dione			C21H22O5 Mol. Wt.: 354.4
Biotinylated-3-hydroxytanshinone			C31H36N2O7S Mol. Wt.: 580.6
(S)-2-((1,6,6-trimethyl-10,11-dioxo-6,7,8,9,10,11-hexahydrophenanthro[1,2-b]furan-7-yl)oxy)ethyl 2-(3-(3-(trifluoromethyl)-3H-diazirin-3-yl)phenoxy)acetate			C31H27F3N2O7 Mol. Wt.: 596.55
6-(hydroxymethyl)-1,6-dimethyl-6,7,8,9-tetrahydrophenanthro[1,2-b]furan-10,11-dione			C19H18O4 Mol. Wt.: 310.34
(1,6-dimethyl-10,11-dioxo-6,7,8,9,10,11-hexahydrophenanthro[1,2-b]furan-6-yl)methyl 2-(2-hydroxyethoxy)acetate			C23H24O7 Mol. Wt.: 412.43
2-((1,6-dimethyl-10,11-dioxo-6,7,8,9,10,11-hexahydrophenanthro[1,2-b]furan-6-yl)methoxy)-2-oxoethoxyethyl 2-(3-(3-(trifluoromethyl)-3H-diazirin-3-yl)phenoxy)acetate			C33H29F3N2O9 Mol. Wt.: 654.59
2-((1,6-dimethyl-10,11-dioxo-6,7,8,9,10,11-hexahydrophenanthro[1,2-b]furan-6-yl)methoxy)-2-oxoethoxyethyl 5-(2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoate			C33H38N2O9S Mol. Wt.: 638.73

Supplementary Figure S1. Tanshinone derivatives regulates HIF-1 α activity. A mixture (3:1) of two stable cell lines (HeLa-hypoxia response element [HRE]-firefly luciferase [FL] and HeLa-CMV-Renilla luciferase [RL]) was plated into 96-well plates at a density of 4000 cells per well. The cells were incubated for 16 hours in the presence of CoCl₂ with the indicated concentrations of tanshinone derivatives. Luciferase activity was determined. Activity is expressed as fold induction relative to the activity in the absence of CoCl₂. HeLa-CMV-RL activity was used to normalize luciferase activity.