

TimTec Natural Products Library, NPL, was used for in silico virtual ligand screening to identify new ligands of the AhR.

Bisson, W. H., et. al. Modeling of the Aryl Hydrocarbon Receptor (AhR) Ligand Binding Domain and Its Utility in Virtual Screening to Predict New AhR Ligands. J. Med. Chem. 2009, Vol. 52, No 18., p 5635-5641


Abstract:

The aryl hydrocarbon receptor (AhR) is a ligand-activated transcription factor; the AhR Per-AhR/Arnt-Sim (PAS) domain binds ligands. We developed homology models of the AhR PAS domain to characterize previously observed intra- and interspecies differences in ligand binding using molecular docking. In silico structure-based virtual ligand screening using our model resulted in the identification of pinoцембрin and 5-hydroxy-7-methoxyflavone, which promoted nuclear translocation and transcriptional activation of AhR and AhR-dependent induction of endogenous target genes.

Six compounds-activators of AhR transcription are available from TimTec stock for re-supply

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To compliment published results with relevantly diverse chemical material, TimTec assembled small collection of 167 analogs to identified in virtual screen AhR ligands. [Download PDF](#)

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MFCD00143506

C₁₆H₁₂O₃

252.27

ST056012

MFCD00143511

C₁₅H₁₀O₅

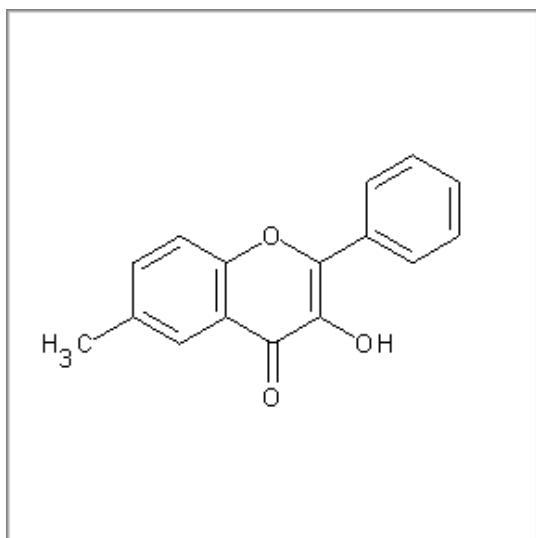
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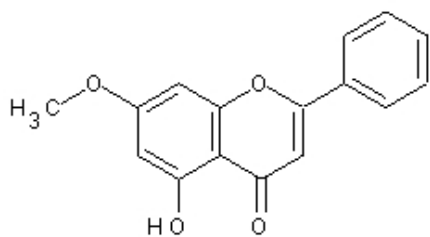
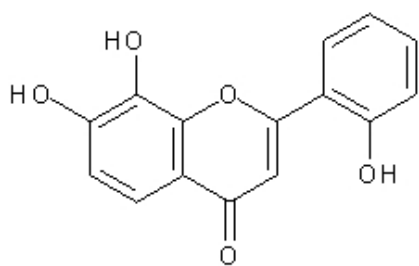
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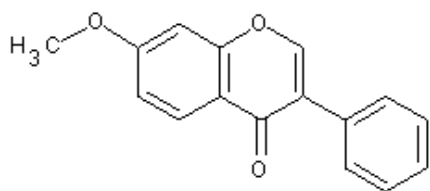
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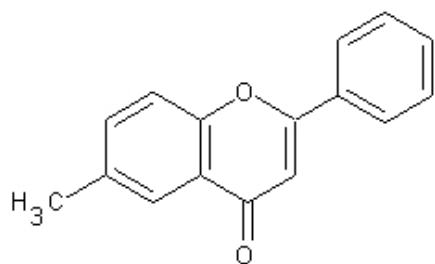
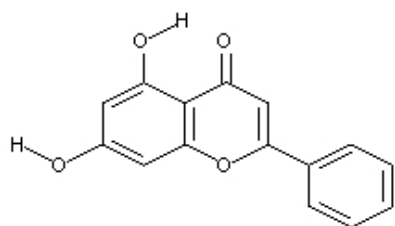
268.27





~~Chemical structure of a flavone derivative~~





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