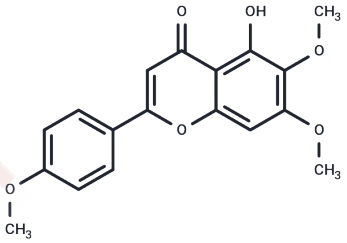
# Data Sheet (Cat.No.TMS1743)

TargetMol

## Salvigenin

### Chemical Properties



CAS No. : 19103-54-9

Formula: C18H16O6

Molecular Weight: 328.32

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Salvigenin is a potent hMAO-A inhibitor, has neuroprotective, antitumor and immunomodulatory effects. |
| Targets(IC50) | Apoptosis,MAO,Autophagy,ROS Kinase |
| In vitro | Co-administration of flavonoids(eupatorin and salvigenin) with doxorubicin induced apoptosis via the mitochondrial pathway as mitochondrial membrane potential and ROS production were changed. Annexin/PI analysis demonstrated that apoptosis frequency was increased with the combination treatments in colon cancer cells. Finally, the combination of these flavonoids with doxorubicin increased the Bax/Bcl-2 ratio, caspase-3 expression and PARP cleavage[1]. |
| Cell Research | Upon establishing a non-effective dose of doxorubicin, and effective doses of eupatorin (100μM) and salvigenin (150μM) via MTT, morphological features of apoptosis were distinguished using DAPI staining and cell cycle blockage in the sub-G1 phase. Apoptosis was determined by annexin/ PI and western blotting. ROS levels and MMP were measured to show any role of mitochondria in apoptosis[1]. |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 4.4 mg/mL (13.4 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.0458 mL | 15.229 mL | 30.4581 mL |
| 5 mM | 0.6092 mL | 3.0458 mL | 6.0916 mL |
| 10 mM | 0.3046 mL | 1.5229 mL | 3.0458 mL |
| 50 mM | 0.0609 mL | 0.3046 mL | 0.6092 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sarvestani N N , Sepehri H , Delphi L , et al. Eupatorin and Salvigenin Potentiate Doxorubicin-Induced Apoptosis and Cell Cycle Arrest in HT-29 and SW948 Human Colon Cancer Cells[J]. Asian Pacific Journal of Cancer Prevention Apjcp, 2018, 19(1):131-139.

de Elguea-Culebras G O, Panamá-Tapia L A, Melero-Bravo E, et al.Comparison of the phenolic composition and biological capacities of wastewater from Origanum vulgare L., Rosmarinus officinalis L., Salvia lavandulifolia Vahl. and Thymus mastichina L. resulting from two hydrodistillation systems: Clevenger and MAE.Journal of Applied Research on Medicinal and Aromatic Plants.2023: 100480.

Rafatian G , Khodagholi F , Farimani M M , et al. Increase of autophagy and attenuation of apoptosis by Salvigenin promote survival of SH-SY5Y cells following treatment with H2O2[J]. Molecular and Cellular Biochemistry, 2012, 371 (1-2):9-22.

de Elguea-Culebras G O, Melero-Bravo E, Jordán M J, et al.Selection of populations of Salvia lavandulifolia Vahl. based on crop adaptations, phenolic chemotypes and biological capacities of the distillation by-products. Industrial Crops and Products.2024, 213: 118337.