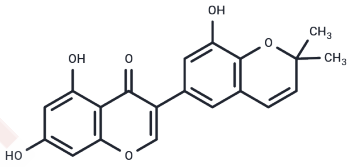
# Data Sheet (Cat.No.TN2201)

TargetMol

## Semilicoisoflavone B

### Chemical Properties



CAS No. : 129280-33-7

Formula: C20H16O6

Molecular Weight: 352.34

Storage: Keep away from direct sunlight,Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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|---|---|
| Description | Semilicoisoflavone B, an isoflavone extracted from Kohlrabi, has anticancer activity and induces apoptosis in oral cancer cells by inducing ROS production and down-regulating MAPK and Ras/Raf/MEK signaling. |
| Targets(IC50) | Beta Amyloid |
| In vitro | We evaluated the inhibitory effects of components from the root of Glycyrrhiza uralensis (G. uralensis) on aldose reductase (AR) and sorbitol formation in rat lenses with high levels of glucose as part of our ongoing search of natural sources for therapeutic and preventive agents for diabetic complications. In order to identify the bioactive components of G. uralensis, 5 prenylated flavonoids (Semilicoisoflavone B, 7-O-methylluteone, dehydroglyasperin C, dehydroglyasperin D, and isoangustone A), three flavonoids (liquiritigenin, isoliquiritigenin, and licochalcone A), and two triterpenoids (glycyrrhizin and glycyrrhetinic acid) were isolated; their chemical structures were then elucidated on the basis of spectroscopic evidence and comparison with published data. The anti-diabetic complication activities of 10 G. uralensis-derived components were investigated via inhibitory assays using rat lens AR (rAR) and human recombinant AR (rhAR). From the 10 isolated compounds, Semilicoisoflavone B showed the most potent inhibition, with the IC(50) values of rAR and rhAR at 1.8 and 10.6microM, respectively. |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 50 mg/mL (141.91 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.84 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.8382 mL | 14.1908 mL | 28.3817 mL |
| 5 mM | 0.5676 mL | 2.8382 mL | 5.6763 mL |
| 10 mM | 0.2838 mL | 1.4191 mL | 2.8382 mL |
| 50 mM | 0.0568 mL | 0.2838 mL | 0.5676 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

Gu MY, et al. Glycyrrhiza uralensis and Semilicoisoflavone B Reduce Aβ Secretion by Increasing PPARγ Expression and Inhibiting STAT3 Phosphorylation to Inhibit BACE1 Expression. Mol Nutr Food Res. 2018 Mar;62(6):e1700633.
Lee YS, et al. Aldose reductase inhibitory compounds from Glycyrrhiza uralensis. Biol Pharm Bull. 2010;33(5):917-21.