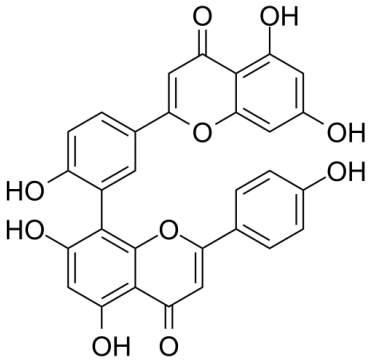
Data Sheet

Product Name:	Amentoflavone
Cat. No.:	CS-4945
CAS No.:	1617-53-4
Molecular Formula:	C30H18O10
Molecular Weight:	538.46
Target:	Apoptosis; Bacterial; Fungal; Reactive Oxygen Species; RSV
Pathway:	Anti-infection; Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Solubility:	DMSO : ≥ 34 mg/mL (63.14 mM)



BIOLOGICAL ACTIVITY:

Amentoflavone is a natural biflavone compound with many biological properties, including anti-inflammatory, antioxidative, and neuroprotective effects. IC50 value: Target: In vitro: In irradiated v79 cells, Pretreatment with amentoflavone 24 hours prior to 8 Gy 60Co γ-ray irradiation significantly inhibited apoptosis, promoted the G2 phase, decreased the concentration of ROS and mitochondrial mass [2]. Amentoflavone dose-dependently inhibited the viability of SW480 cells, and a high concentration of amentoflavone (150 μmol/L) obviously induced apoptosis of the cells [3]. In vivo: In epilepsy models, amentoflavone effectively prevented pilocarpine-induced epilepsy in a mouse kindling model, suppressed nuclear factor-κB activation and expression, inhibited excessive discharge of hippocampal neurons resulting in a reduction in epileptic seizures, shortened attack time, and diminished loss and apoptosis of hippocampal neurons [1].

References:

[1]. Zhang Z, et al. Amentoflavone protects hippocampal neurons: anti-inflammatory, antioxidative, and antiapoptotic effects. Neural Regen Res. 2015 Jul;10(7):1125-33.

[2]. Xu P, et al. Amentoflavone acts as a radioprotector for irradiated v79 cells by regulating reactive oxygen species (ROS), cell cycle and mitochondrial mass. Asian Pac J Cancer Prev. 2014;15(18):7521-6.

[3]. Yang Y, et al. [Amentoflavone induces apoptosis in SW480 human colorectal cancer cells via regulating β-catenin and caspase-3 expressions]. Nan Fang Yi Ke Da Xue Xue Bao. 2014 Jun;34(7):1035-8.

CAIndexNames:

4H-1-Benzopyran-4-one, 8-[5-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)-2-hydroxyphenyl]-5,7-dihydroxy-2-(4-hydroxyphenyl)-

SMILES:

O=C1C=C(C2=CC=C(O)C=C2)OC3=C(C4=CC(C5=CC(C6=C(O)C=C(O)C=C6O5)=O)=CC=C4O)C(O)=CC(O)=C13

Caution: Product has not been fully validated for medical applications. For research use only.

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