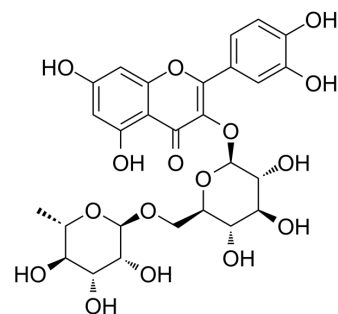


Rutin

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-N0148 | | |
| CAS No.: | 153-18-4 | | |
| Molecular Formula: | C ₂₇ H ₃₀ O ₁₆ | | |
| Molecular Weight: | 610.52 | | |
| Target: | Amyloid-β; Autophagy | | |
| Pathway: | Neuronal Signaling; Autophagy | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 35 mg/mL (57.33 mM)
 * "≥" means soluble, but saturation unknown.

| | Solvent Concentration | Mass | | |
|------------------------------|--------------------------|-----------|-----------|------------|
| | | 1 mg | 5 mg | 10 mg |
| Preparing Stock Solutions | 1 mM | 1.6379 mL | 8.1897 mL | 16.3795 mL |
| | 5 mM | 0.3276 mL | 1.6379 mL | 3.2759 mL |
| | 10 mM | 0.1638 mL | 0.8190 mL | 1.6379 mL |

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Rutin (Rutoside) is a flavonoid found in many plants and shows a wide range of biological activities including anti-inflammatory, antidiabetic, antioxidant, neuroprotective, nephroprotective, hepatoprotective and reducing Aβ oligomer activities. Rutin can cross the blood brain barrier. Rutin attenuates vancomycin-induced renal tubular cell apoptosis via suppression of apoptosis, mitochondrial dysfunction, and oxidative stress^{[1][2][3]}.

In Vivo

Rutin hydrate ameliorates cadmium chloride-induced spatial memory loss and neural apoptosis in rats by enhancing levels of acetylcholine, inhibiting JNK and ERK1/2 activation and activating mTOR signaling^[4].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ghorbani A. Mechanisms of antidiabetic effects of flavonoid rutin. Biomed Pharmacother. 2017;96:305-312.

[2]. Habtemariam S. Rutin as a Natural Therapy for Alzheimer's Disease: Insights into its Mechanisms of Action. *Curr Med Chem*. 2016;23(9):860-873.

[3]. Xu PX, et al. Rutin improves spatial memory in Alzheimer's disease transgenic mice by reducing A β oligomer level and attenuating oxidative stress and neuroinflammation. *Behav Brain Res*. 2014;264:173-180.

[4]. Abdel-Aleem GA, et al. Rutin hydrate ameliorates cadmium chloride-induced spatial memory loss and neural apoptosis in rats by enhancing levels of acetylcholine, inhibiting JNK and ERK1/2 activation and activating mTOR signalling. *Arch Physiol Biochem*. 2018;124(4):367-377.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA