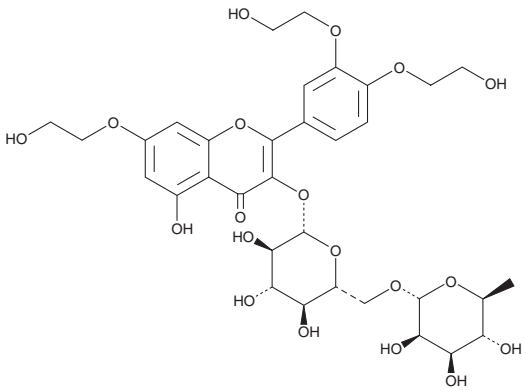
PRODUCT INFORMATION

Troxerutin

Item No. 27220

CAS Registry No.:	7085-55-4
Formal Name:	2-[3,4-*bis*(2-hydroxyethoxy)phenyl]-3-[[6-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranosyl]oxy]-5-hydroxy-7-(2-hydroxyethoxy)-4H-1-benzopyran-4-one
Synonyms:	Trihydroxyethylrutin, Vitamin P_4
MF:	$C_{33}H_{42}O_{19}$
FW:	742.7
Purity:	≥90%
UV/Vis.:	λ_{max}: 257, 352 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/Flos Sophorae Immaturus



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Troxerutin is supplied as a crystalline solid. A stock solution may be made by dissolving the troxerutin in the solvent of choice, which should be purged with an inert gas. Troxerutin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of troxerutin in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of troxerutin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of troxerutin in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Troxerutin is a flavonoid that has been found in a variety of fruits and vegetables and has diverse biological activities.[1-3] It reduces D-galactose-induced increases in renal malondialdehyde (MDA) levels and decreases in renal Cu/Zn superoxide dismutase (SOD), catalase, and glutathione peroxidase (GPX) activities in mice when administered at a dose of 150 mg/kg per day, as well as attenuates D-galactose-induced increases in renal levels of NF-κB p65, inducible nitric oxide synthase (iNOS), COX-2, and prostaglandin E_2 receptor 2 (EP_2).[1] Troxerutin (150 mg/kg per day) reduces blood glucose levels, plasma triglyceride levels, heart rate, and blood pressure in a rat model of type 2 diabetes induced by streptozotocin (STZ; Item No. 13104).[2] Troxerutin (150 mg/kg per day) prevents the loss of dopaminergic neurons in the substantia nigra pars compacta (SNC) and reduces apomorphine-induced contralateral rotations in a rat model of Parkinson's disease induced by 6-OHDA (Item No. 25330).[3]

References

1. Fan, S.-h., Zhang, Z.-f., Zheng, Y.-l., *et al. Int. Immunopharmacol.* **9(1)**, 91-96 (2009).
2. Yu, Y. and Zheng, G. *Mol. Med. Rep.* **15(6)**, 3473-3478 (2017).
3. Baluchnejadmojarad, T., Jamali-Raeufy, N., Zabihnejad, S., *et al. Eur. J. Pharmacol.* **801**, 72-78 (2017).

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