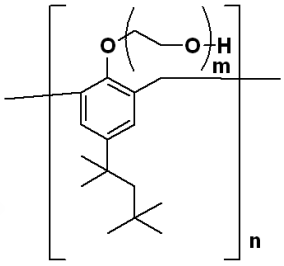
Data Sheet (Cat.No.T0307)

TargetMol

Tyloxapol

Chemical Properties



CAS No. : 25301-02-4

Formula:

Molecular Weight:

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

Biological Description

Description	Tyloxapol is an alkyl aryl polyether alcohol-type nonionic liquid polymer used as a surfactant stabilizer. It is commonly used to induce hyperlipidemia models in animals.
Targets(IC50)	NF-κB,LPL Receptor
In vitro	Tyloxapol is generally regarded as a safe stabilizer. In some studies, it is reported to causes cytotoxicity in epithelial and red blood cells, induces lysis of human Jurkat T-lymphoblasts and the apoptosis in RAW 264.7 murine macrophage-like cells and NIH/3T3 mouse fibroblast cells. These indications of cytotoxicity, however, do not reflect the in vivo use of Tyloxapol, since it is rarely used alone in clinical applications[3].
In vivo	A single intravenous injection of tyloxapol at dose of 400 mg/kg body weight shows three distinctive phases, sharp linear increment, slow linear increment and slow decrement of plasma lipids toward the basal levels[1]. The treatment of tyloxapol enhannces the pulmonary absorption of rh-insulin and increases the absorption of inhaled insulin in diabetic rats. It might significantly increase the hypoglycemic effect of intratracheally administered insulin in diabetic rats but does not change the LDH activity [2].
Cell Research	HEK293 cells growing at 40% confluency are exposed to different test dispersions of SLP or their individual components for 48 h and observed the alterations in cellular morphology.(Only for Reference)

Solubility Information

Solubility	H2O: 25 mg/mL,Sonication is recommended. DMSO: 38 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Reference

Rasouli M, et al. J Clin Diagn Res. 2016, 10(6):BF01-5.
Guo, Wen, et al. Tyloxapol inhibits RANKL-stimulated osteoclastogenesis and ovariectomized-induced bone loss by restraining NF-κB and MAPK activation.. Journal of Orthopaedic Translation. 2021 Apr 10;28:148-158. doi: 10.1016/j.jot.2021.01.005. eCollection 2021 May.
Zheng J, et al. Chem Pharm Bull (Tokyo). 2010, 58(12):1612-1616.
Kristl J, et al. Toxicol Appl Pharmacol. 2008, 232(2):218-225.
Guo, Wen, et al. Tyloxapol inhibits RANKL-stimulated osteoclastogenesis and ovariectomized-induced bone loss by restraining NF-κB and MAPK activation. Journal of Orthopaedic Translation . 28 (2021): 148-158.