Tyloxapol

Cat. No.: HY-B1068

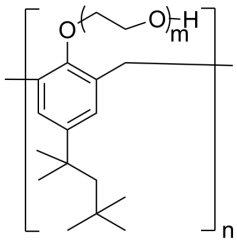
CAS No.: 25301-02-4

Molecular Formula: $(C_{15}H_{21}O(C_2H_4O)m)n$

Target: Biochemical Assay Reagents

Pathway: Others

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



m = 6 – 8
n <= 5

SOLVENT & SOLUBILITY

In Vitro

H_2O : 120 mg/mL (Need ultrasonic)
Ethanol : 100 mg/mL (Need ultrasonic)
DMSO : ≥ 38 mg/mL
* "≥" means soluble, but saturation unknown.

In Vivo

1. Add each solvent one by one: PBS
Solubility: 100 mg/mL (Infinity mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Tyloxapol (Triton WR1339) is a nonionic liquid polymer of the alkyl aryl polyether alcohol type, used as a surface active stabilizer. Tyloxapol (Triton WR1339) is used to induce hyperlipidemia in animals[1][2].

In Vitro

Tyloxapol (100 μg/mL) triggers the detachment of HEK293 cells[2].
Tyloxapol induces nuclear fragmentation and the appearance of apoptotic nuclei[2].
Tyloxapol increases the risk of pulmonary haemorrhage, causes cytotoxicity in epithelial and red blood cells, and induces lysis of human Jurkat T-lymphoblasts[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Tyloxapol (Triton WR1339, 50 mg/kg) causes significant (P?< 0.05) decreases in the activities of the AChE and MAO enzymes in rat plasma and brain[1].
?Tyloxapol leads to significant (P?< 0.05) reduction in the plasma urea, creatinine, and bilirubin[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Twenty-one adult male Wistar rats, aged 11–12 weeks weighing 180-200 g[1].
Dosage:	50 mg/kg.
Administration:	Injected intraperitoneally, BW, every other day.
Result:	Caused a significant (P < 0.05) elevation in the levels of TBARS combined with an inhibition

	of the antioxidant enzymes (GPx, GST, CAT, SOD) in rat plasma, liver, and brain. Induced DNA fragmentation and inhibited the activities of acetylcholinesterase and mono aminoxidase in the brain.

CUSTOMER VALIDATION

- Acta Pharmacol Sin. 2024 May 24.
- Oxid Med Cell Longev. 2022 May 24;2022:1889632.

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REFERENCES

[1]. Heba Mohamed Abdou, et al. Triton WR-1339-induced hyperlipidemia, DNA fragmentation, neurotransmitters inhibition, oxidative damage, histopathological and morphometric changes: the protective role of soybean oil. The Journal of Basic and Applied Zoology volume 79, Article number: 51 (2018).

[2]. Julijana Kristl, et al. Surface active stabilizer tyloxapol in colloidal dispersions exerts cytostatic effects and apoptotic dismissal of cells. Toxicol Appl Pharmacol. 2008 Oct 15;232(2):218-25.

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

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