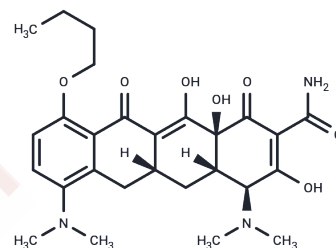


10-Butyl Ether Minocycline

Chemical Properties

CAS No. :	488815-65-2
Formula:	C ₂₇ H ₃₅ N ₃ O ₇
Molecular Weight:	513.58
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	10-Butyl EtherMinocycline is a derivative of Minocycline and acts as an inhibitor of MMP-8 and MMP-9, with IC ₅₀ values of 69.4 μM and 47.0 μM, respectively. It exhibits negligible antibacterial activity against E. coli, S. typhi, and C. albicans. Additionally, 10-Butyl EtherMinocycline inhibits LPS-induced microglial activation and VEGF-induced endothelial cell migration, as well as L-Glutamine-induced ROS levels. This compound significantly reduces alcohol consumption in a chronic intermittent ethanol (CIE) mouse model and is utilized in studies related to neuroinflammation and alcohol use disorder (AUD).
Targets(IC ₅₀)	MMP,Lipoxygenase,ROS
In vitro	10-Butyl Ether Minocycline exhibits negligible antibacterial activity against E. coli, S. typhi, and C. albicans at concentrations of 1.56-100 μg/mL. It induces a dose-dependent reduction in the viability of neuroblastoma (NB) cells, with an IC ₅₀ of 102.1 μM, when used at 0.1-500 μM for 24 hours. At a concentration of 25 μM for 12 hours, it inhibits LPS-mediated activation of microglial cells in N9 microglia. In HUVECs cells, 10-Butyl Ether Minocycline at 100 μM for 12 hours suppresses VEGF-induced endothelial cell migration. Furthermore, it diminishes L-Glutamine-induced ROS generation in N9 microglia in a dose-dependent manner at 30-120 μM. Additionally, it inhibits 15-LOX with an IC ₅₀ of 92.6 μM. In HCT 116 cells, 10-Butyl Ether Minocycline at 30-120 μM does not exhibit significant mitochondrial toxicity compared to sodium azide.
In vivo	A single intraperitoneal injection of 10-Butyl Ether Minocycline (60 mg/kg) significantly reduces alcohol consumption in a chronic intermittent ethanol (CIE) mouse model of alcohol dependence.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9471 mL	9.7356 mL	19.4712 mL
5 mM	0.3894 mL	1.9471 mL	3.8942 mL
10 mM	0.1947 mL	0.9736 mL	1.9471 mL
50 mM	0.0389 mL	0.1947 mL	0.3894 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481