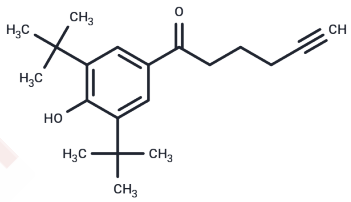
Data Sheet (Cat.No.T68155)

TargetMol

Tebufelone

Chemical Properties



CAS No. : 112018-00-5

Formula: C20H28O2

Molecular Weight: 300.44

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	Tebufelone is a potent in vitro inhibitor of CO , a novel non-steroidal anti-inflammatory drug (NSAID) belonging to the di-tert-butylphenol (DTBP) class that has shown potent anti-inflammatory, analgesic and anti-reticulitis properties in various animal models. Tebufelone potently inhibits the formation of prostaglandins (PGE2) and blocks the formation of lipoxygenase pathway products [leukotriene (LTB4)] in rat macrophages (IC50 = 20 microM) and human whole blood (IC50 = 22 microM) in vitro. = 20 microM) and human whole blood (IC50 = 22 microM) from the formation of lipoxygenase pathway products [leukotriene (LTB4)] in vitro.
Targets(IC50)	LTR,COX,Lipoxygenase,Prostaglandin Receptor
In vivo	Tebufelone (25, 50, 100, or 200 mg) waiting thirty minutes later, E. coli endotoxin (2 ng/kg) was administered intravenously. Oral temperatures were recorded at 15 minute intervals from 30 minutes post dosing to 8 hours post endotoxin administration. Areas under the temperature curves (AUCs), adjusted for baseline, were significantly lower than placebo for ASA and all but the 25 mg Tebufelone groups.[1]

Solubility Information

Solubility	DMSO: 30 mg/mL (99.85 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3285 mL	16.6423 mL	33.2845 mL
5 mM	0.6657 mL	3.3285 mL	6.6569 mL
10 mM	0.3328 mL	1.6642 mL	3.3285 mL
50 mM	0.0666 mL	0.3328 mL	0.6657 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.

Reference

Powell JH, et al. Antipyretic activity of tebufelone (NE-11740) in man. Agents Actions Suppl. 1991 ; 32:45-49.
Doyle MJ, et al. Comparison of tebufelone distribution in rat blood plasma and inflamed and noninflamed tissues following peroral and intravenous administration. J Pharm Sci. 1993 ; 82(8):847-850.
Smith BJ, et al. Characterization of the effects of tebufelone on hepatic cytochromes P450 in the beagle dog. Drug Metab Dispos. 1996 ; 24(5):523-528.
Sietsema WK, et al. Absorption, bioavailability, and pharmacokinetics of tebufelone in the rat. J Pharm Sci. 1993 ; 82(6):610-612.
Kaffenberger RM, et al. Determination of tebufelone (a new anti-inflammatory drug) strength and stability in bulk drug, dosage formulations and feed admixtures by reversed-phase high-performance liquid chromatography. J Chromatogr. 1990 ; 505(2):349-356.