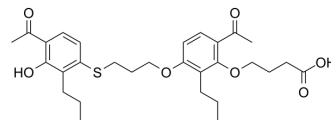


Tipelukast

Cat. No.:	HY-14938	
CAS No.:	125961-82-2	
Molecular Formula:	C ₂₉ H ₃₈ O ₇ S	
Molecular Weight:	530.67	
Target:	Leukotriene Receptor	
Pathway:	GPCR/G Protein	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 1 mg/mL (1.88 mM; Need ultrasonic and warming)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.8844 mL	9.4221 mL	18.8441 mL
	5 mM	---	---	---
	10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description	Tipelukast (KCA 757) is a sulfidopeptide leukotriene receptor antagonist, an orally bioavailable anti-inflammatory agent and used for the treatment of asthma.	
IC₅₀ & Target	LTD ₄ 6.41 (pA2, In guinea-pigs)	LTE ₄ 6.45 (pA2, In guinea-pigs)
In Vitro	Tipelukast inhibits the binding of [³ H] LTD ₄ to the LTD ₄ receptors on pulmonary cell membrane of guinea-pigs (IC ₅₀ = 2.3 μmol) ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Fifteen min after an aerosolized antigen challenge, and UNDW inhaled 5 min later into the guinea pigs, Tipelukast significantly alters the UNDW-induced bronchoconstriction ^[1] . Tipelukast (1 and 5 mg/kg) administered intravenously 15 min after antigen challenge reduces the propranolol-induced bronchoconstriction (PIB) in a dose-dependent manner in guinea-pigs ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

- [1]. Fujimura M, et al. No involvement of lipid mediators in a guinea pig model of ultrasonically nebulized distilled water-induced bronchoconstriction. Prostaglandins Other Lipid Mediat. 2000 Jan;60(1-3):49-58.
- [2]. Fujimura M, et al. Role of leukotrienes in post-allergic propranolol-induced bronchoconstriction in guinea-pigs. Clin Exp Allergy. 1997 Oct;27(10):1219-26.
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Caution: Product has not been fully validated for medical applications. For research use only.

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