

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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Mizolastine

Cat. No.: HY-B0164 CAS No.: 108612-45-9 Molecular Formula: $C_{24}H_{25}FN_6O$ Molecular Weight: 432.49

Target: **Histamine Receptor**

Pathway: GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling

-20°C Storage: Powder 3 years

4°C 2 years

-80°C In solvent 2 years

> -20°C 1 year

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 25 mg/mL (57.80 mM; Need ultrasonic)

H₂O: < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.3122 mL	11.5610 mL	23.1219 mL
	5 mM	0.4624 mL	2.3122 mL	4.6244 mL
	10 mM	0.2312 mL	1.1561 mL	2.3122 mL

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

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.78 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.78 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.78 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Mizolastine is an orally active, high affinity and specific peripheral histamine H1 receptor antagonist (second generation antihistamine). Mizolastine effectively inhibits mRNA expression of VEGF120, TNF-α and KC. Mizolastine can be used in studies of allergic rhinitis and chronic idiopathic urticarial^{[1][2][3]}.

In Vitro Mizolastine (1-10000 nM; 0.5-6 h) shows inhibitory effects on VEGF, KC and TNF- α release in mast cells^[1].

Mizolastine (0.1 μM; 4 h) significantly reduces VEGF165, VEGF120, TNF-α and KC mRNA expression in mast cells^[1].

MCE has not independent Cell Viability Assay ^[1]	tly confirmed the accuracy of these methods. They are for reference only.		
Cell Line:	Mast cells (from Kunming mice)		
Concentration:	1-10000 nM		
Incubation Time:	0.5-6 h		
Result:	Markedly inhibited release of KC, VEGF and TNF- α in a time- and dose- dependent manner.		
RT-PCR ^[1]			
Cell Line:	Mast cells (from Kunming mice)		
Concentration:	0.1 μΜ		
Incubation Time:	4 h		
Result:	Led to a significant reduction of induced VEGF165, VEGF120, TNF- $\!\alpha$ and KC mRNA synthesis.		

In Vivo

Mizolastine (0.3 mg/kg; p.o.; single daily for 7 days) inhibits production of 5-LOX AA (arachidonic acid) metabolite leukotriene B4 (LTB4), and suppresses expression of 5-LOX, cytosolic PLA2 (cPLA2), 5-LOX-activating protein, and LTB4 receptor mRNA in the AA-induced inflammation model^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley rats (specific-pathogen-free; 234-254 g; 7 to 8-week-old; rat paw edema model) $^{[2]}$.		
osage:	0.3 mg/kg		
Administration:	Oral gavage; single daily for 7 days.		
Result:	Significantly reduced paw edema by 21% at 1 h, and by 14\(\times\)18% between 2 and 4 h. Inhibited inflammatory cell infiltration and significantly reduced levels of LTB4. Suppressed expression of 5\(\times\)LOX, cPLA2, FLAP and LTB4r mRNA.		

REFERENCES

[1]. Xia Q, et al. The effect of mizolastine on expression of vascular endothelial cell growth factor, tumour necrosis factor-alpha and keratinocyte-derived chemokine in murine mast cells, compared with dexamethasone and loratadine. Clin Exp Dermatol. 2005 Mar

[2]. Ren X, et al. The anti-inflammatory effects of Yunnan Baiyao are involved in regulation of the phospholipase A2/arachidonic acid metabolites pathways in acute inflammation rat model. Mol Med Rep. 2017 Oct;16(4):4045-4053.

[3]. Prakash A, et al. Mizolastine: a review of its use in allergic rhinitis and chronic idiopathic urticaria. BioDrugs. 1998 Jul;10(1):41-63.

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

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