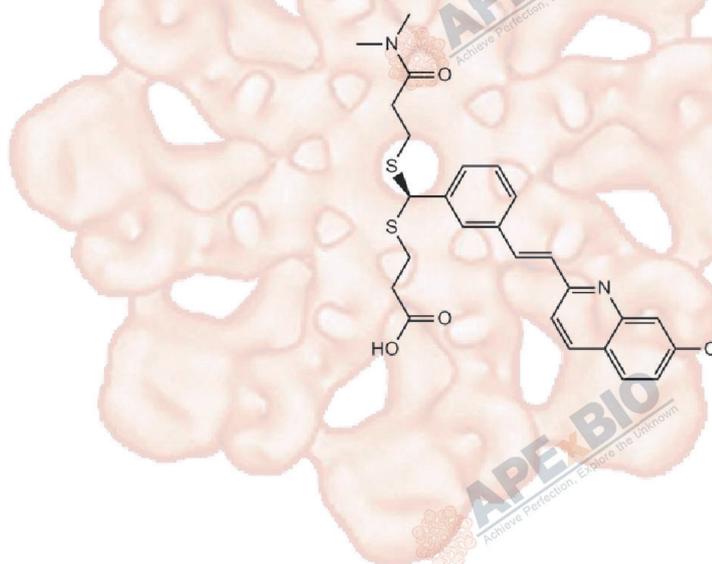


Product Data Sheet

MK-571

Cat. No.:	B7023
CAS No.:	115104-28-4
Formula:	C ₂₆ H ₂₇ CIN ₂ O ₃ S ₂
M.Wt:	515.09
Synonyms:	
Target:	GPCR/G protein
Pathway:	Leukotriene Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥55.1 mg/mL in DMSO; insoluble in EtOH; insoluble in H₂O

In Vitro

Preparing Stock Solutions	Solvent	Mass	1mg	5mg	10mg
		Concentration			
		1 mM	1.9414 mL	9.7070 mL	19.4141 mL
		5 mM	0.3883 mL	1.9414 mL	3.8828 mL
		10 mM	0.1941 mL	0.9707 mL	1.9414 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

leukotriene D4 receptor antagonist, orally active

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: U937 cell line

Preparation method:

The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions:

IL-6 protein determination: Freshly isolated monocytes were stimulated with

		medium, LPS (1 ng/ml), MK-571 (10 µM), and the combination of both during 24 h.
	Applications:	Costimulating the cells with 10 µM MK-571 and 1 ng/ml LPS enhanced IL-6 secretion (2.0±0.4 fold increase, p<0.01) than cells only stimulated by LPS. And a 1.6 fold increase in IL-6 mRNA expression was also observed by the combination of LPS and MK-571 compared to the effects of LPS alone.
In Vivo	Animal experiment	
	Animal models:	Sensitized male Balb/c mice weighing 20±25 g
	Dosage form:	Effect of MK-571 on cell infiltration: Animals were treated with an injection of MK-571 in the caudal vein (1, 10, 100 mg/kg) for 30 min
	Applications:	The MK-571 inhibition for eosinophil infiltration in the bronchoalveolar lavage was 46%, 63.9% and 90% at the dose of 1 mg/kg, 10 mg/kg and 100 mg/kg. And MK-571 produced a total inhibition of neutrophil infiltration.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Edo Vellenga, Leonore Tuyt, Bart-Jan Wierenga, Michael Muller & Wim Dokter. Interleukin-6 production by activated human monocytic cells is enhanced by MK-571, a specific inhibitor of the multi-drug resistance protein-1. Br J Pharmacol, 1999, 127(2): 441-448.
- [2]. Blain JF, Sirois P. Involvement of LTD(4) in allergic pulmonary inflammation in mice: modulation by cysLT(1) antagonist MK-571. Prostaglandins Leukot Essent Fatty Acids, 2000, 62(6): 361-368.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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