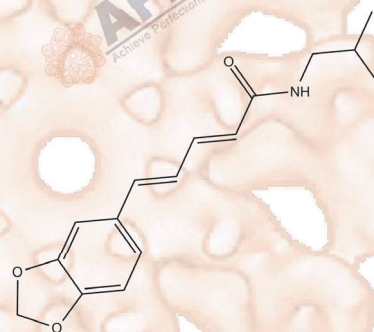


Product Data Sheet

Piperlonguminine

Cat. No.:	C3508
CAS No.:	5950-12-9
Formula:	C ₁₆ H ₁₉ NO ₃
M.Wt:	273.3
Synonyms:	N-Isobutylpiperamide NSC 125178
Target:	Microbiology & Virology
Pathway:	Antibiotic
Storage:	Store at -20° C



Solvent & Solubility

≥25.9 mg/mL in DMSO; ≥21.3 mg/mL in EtOH; insoluble in H₂O

In Vitro

	Solvent	Mass	1mg	5mg	10mg
Preparing					
Stock Solutions					
	1 mM		3.6590 mL	18.2949 mL	36.5898 mL
	5 mM		0.7318 mL	3.6590 mL	7.3180 mL
	10 mM		0.3659 mL	1.8295 mL	3.6590 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

antifungal, anticancer, antihyperlipidemic, and anti-inflammatory properties.

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: Melanoma B16 cells

Preparation method:

The solubility of this compound in DMSO is ≤ 20mg/ml. 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:

3~30 μM

In Vivo	Applications:	Piperlonguminine does not alter 1-oleoyl-2-acetyl-sn-glycerin-induced melanin production, nor does it affect protein kinase C-mediated melanin production. In addition, piperlonguminine cannot inhibit the catalytic activity of cell-free tyrosinase in melanoma B16 cells, which is attributed to the inhibitory effect of piperlonguminine on the α -MSH-induced signal of cAMP to cAMP response element binding protein.
	Animal experiment	
	Animal models:	Cerebral ischemia rats
	Dosage form:	2.4 mg/kg (i.p.)
	Applications:	Intraperitoneal injection of piperlonguminine (2.4 mg/kg) has obvious neuroprotective effect on cerebral ischemia rats. Piperlonguminine attenuates neurological deficit scores, cerebral infarct volume and brain water content in rats, and inhibits the activation of NF- κ B and MAPK. These data suggest that piperlonguminine protects the brain from ischemic brain damage by reducing the damage to the blood-brain barrier (BBB), which may be mediated by inhibiting NF- κ B and MAPK signaling pathways.
	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]. Kim KS, Kim JA, Eom SY, Lee SH, Min KR, Kim Y. Inhibitory effect of piperlonguminine on melanin production in melanoma B16 cell line by downregulation of tyrosinase expression. Pigment Cell Res. 2006 Feb;19(1):90-8. PubMed PMID: 16420250.
- [2]. Yang T, Sun S, Wang T, Tong X, Bi J, Wang Y, Sun Z. Piperlonguminine is neuroprotective in experimental rat stroke. Int Immunopharmacol. 2014 Dec;23(2):447-51. doi: 10.1016/j.intimp.2014.09.016. Epub 2014 Sep 22. PubMed PMID: 25257731.

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 APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage

temperature. Shortterm 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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