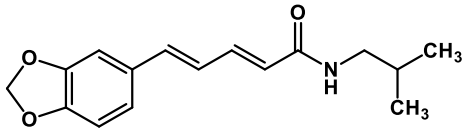
Piperlonguminine

Name of the Phytochemical	**Piperlonguminine**
Chemical Structure	
Botanical Source	Piper longum
CAS Number	5950-12-9
Functional Activity	• It has potent antitumor, antitrypanosomal, anti-hyperlipidemic, anti-platelet and anti-melanogenesis activities • Piperlonguminine is an inhibitor of Akt/mTOR signalling. It acts by promoting autophagy and mediating cancer cell death. • It exhibits neuroprotective activity in rat plasma, indicating its potential to treat Alzheimer's disease • Piperlonguminine improves hepatocyte fatty degeneration of alcoholic fatty liver in mice; it can effectively prevent the occurrence and development of alcoholic fatty liver. • **Piperlonguminine** is an efficient depigmenting agent with a novel mechanism of action
Key References	**1.** Inhibitory effect of piperlonguminine/dihydropiperlonguminine on the production of amyloid β and APP in SK-N-SH cells. **Chinese Journal of.Physiology. 2009, 52, 160-168** **2.** Inhibition of β-Amyloid Precursor Protein Gene in SK-N-SH Cells by Piperlonguminine/ Dihydropiperlonguminine Components Separated from Chinese Herbal Medicine Futokadsura Stem, **Chinese Journal of Physiology, 2007, 50, 157-163**

3. *Preventive Effects of Piperlonguminine on Alcoholic Fatty Liver Disease in Mice, Food Science, 2014*
4. *In vivo growth inhibition of sarcoma 180 by piperlonguminine, an alkaloid amide from the Piper species, Journal of Applied Toxicology, 2008, 28, 599-607*
5. *The natural compounds piperovatine and piperlonguminine induce autophagic cell death on Trypanosoma cruzi, Acta Trop. 2013, 125, 349-56.*
6. *Inhibitory effect of piperlonguminine on melanin production in melanoma B16 cell line by downregulation of tyrosinase expression, Pigment Cell Res, 2006, 19, 90-8.*
7. Hypolipidemic effects of piperlonguminine in HepG2 cells and in Wistar rats, **Pharmazie. 2012, 67, 858-61**
8. Adipogenic effects of piperlonguminine in 3T3-L1 cells and plasma concentrations of several amide constituents from Piper chaba extracts after treatment of mice, **J Nat Med. 2013**
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10. Piperlonguminine Downregulates Endothelial Protein C Receptor Shedding In Vitro and In Vivo**, Inflammation. 2013**
11. Anticoagulant activities of piperlonguminine in vitro and in vivo, **BMB Rep. 2013 46, 484-9.**
12. Piperlonguminine is neuroprotective in experimental rat stroke, **Int Immunopharmacol., 2014, 23, 447-451.**