LKT Laboratories, Inc.

Piperlongumine

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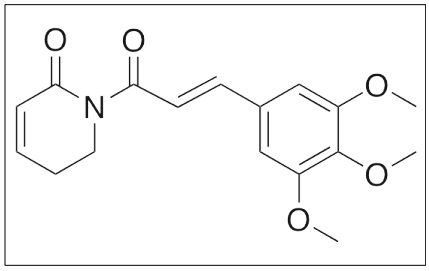
Product Information

Product ID P3561
CAS No. 20069-09-4
Chemical Name (E)-1-(3-(3,4,5-Trimethoxyphenyl)acryloyl)-5,6-dihydropyridin-2(1H)-one
Synonym 1-[(2E)-3,4,5-trimethoxyphenyl)prop-2-enoyl]-5,6-dihydropyridin-2-(1H)-one, Piplartine

Formula $C_{17}H_{19}NO_5$
Formula Wt. 317.34
Melting Point
Purity ≥98%
Solubility DMSO (~25 mg/ml)



Bulk quanitites available upon request

Product ID	Size
P3561	25 mg
P3561	100 mg
P3561	250 mg

Store Temp -20˚C
Ship Temp Ambient

Description Piperlongumine is found in several species of the *Piper* plant and displays many beneficial characteristics, including antithrombotic, anti-inflammatory, anti-atherosclerotic, and chemotherapeutic activities. Piperlongumine directly inhibits thromboxane A2 (TxA2) receptors, inhibiting platelet aggregation in vivo. Piperlongumine also decreases NF-κB activation and inhibits PDGFR signaling in vivo, inhibiting cell migration and decreasing atherosclerotic plaque formation. In a cellular model of prostate cancer, piperlongumine inhibits NF-κB activity and decreases expression of IL-6, IL-8, MMP9, and ICAM-1, decreasing cell invasion and growth; in a separate study using a similar model, this compound prevents transcription of androgen receptors, decreasing androgen receptor protein levels. In several other cellular models of cancer (including glioblastoma multiforme and colon cancer), piperlongumine inhibits the ubiquitin-proteasome system, likely at a pre-proteasomal stage, increasing reactive oxygen species (ROS) and stimulating activation of p38, resulting in autophagy and cell death. It is a novel CRM1 inhibitor.

References

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Caution: This product is intended for laboratory and research use only. It is not for human or drug use.