



LKT Laboratories, Inc.

SAG

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lctlabs.com
Web: lctlabs.com

Product Information

Product ID S0224

CAS No. 912545-86-9

Chemical Name 3-Chloro-N-[trans-4-(methylamino)cyclohexyl]-N-[3-(4-pyridinyl)benzyl]-1-benzothiophene-2-carboxamide

Synonym 3-Chloro-N-[trans-4-(methylamino)cyclohexyl]-N-[3-(4-pyridinyl)benzyl]-1-benzothiophene-2-carboxamide

Formula C₂₈H₂₈ClN₃OS

Formula Wt. 490.06

Melting Point

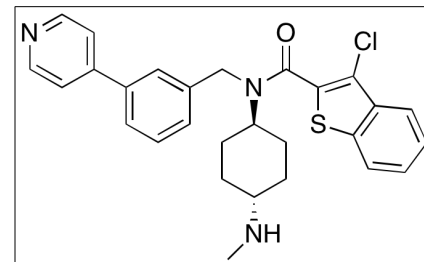
Purity ≥98%

Solubility Soluble in DMSO. Sparingly soluble in water (acidification with HCl increases water solubility).

Store Temp -20 °C

Ship Temp Ambient

Description SAG is a Smoothened agonist primarily used in research models to study Hedgehog signaling pathways. In vitro, SAG stimulates osteoblastic differentiation of mesenchymal stem cells and enhances proliferation of pulmonary arterial smooth muscle cells. SAG also increases expression of Patched and efflux of cholesterol. In vivo, this compound exhibits neuroprotective activity, preventing glucocorticoid-induced neurotoxicity.



Bulk quantities available upon request

Product ID	Size
S0224	1 mg
S0224	5 mg

References Huang JG, Shen CB, Wu WB, et al. Primary cilia mediate sonic hedgehog signaling to regulate neuronal-like differentiation of bone mesenchymal stem cells for resveratrol induction in vitro. *J Neurosci Res.* 2014 May;92(5):587-96. PMID: 24464877.

Heine VM, Griveau A, Chapin C, et al. A small-molecule smoothened agonist prevents glucocorticoid-induced neonatal cerebellar injury. *Sci Transl Med.* 2011 Oct 19;3(105):105ra104. PMID: 22013124.

Bidet M, Joubert O, Lacombe B, et al. The hedgehog receptor patched is involved in cholesterol transport. *PLoS One.* 2011;6(9):e23834. PMID: 21931618.

Wang G, Zhang Z, Xu Z, et al. Activation of the sonic hedgehog signaling controls human pulmonary arterial smooth muscle cell proliferation in response to hypoxia. *Biochim Biophys Acta.* 2010 Dec;1803(12):1359-67. PMID: 20840857.

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