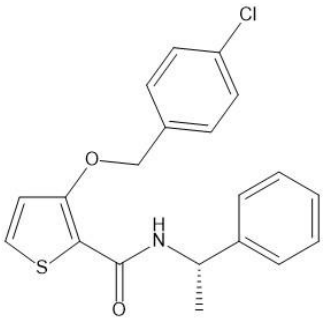
Catalog # 10-5103
AS-1949490

CAS# 1203680-76-5

3-[(4-Chlorophenyl)methoxy]-N-[(1S)-1-phenylethyl]- 2-thiophenecarboxamide

Lot # S105225



A potent and selective inhibitor of the intracellular phosphatase SHIP2 (SH2 domain-containing inositol 5'-phosphatase 2), IC_{50} = 0.62 μM.[1] Displays ca. 30-fold selectivity for SHIP2 over SHIP1. Activates insulin signaling via the Akt pathway in liver and lowers glucose levels in diabetic mice.[1,2] Enhances BDNF expression in cultured cortical neurons.[3] Ameliorates ROS generation but aggravates apoptosis in CD2AP-deficient mouse podocytes.[4]

1) Suwa *et al*. (2009), *Discovery and functional characterization of a novel small molecule inhibitor of the intracellular phosphatase, SHIP2*; Br. J Pharmacol., **158** 879
2) Suwa *et al*. (2010), *Glucose metabolism activation by SHIP2 inhibitors via up-regulation of GLUT1 gene in L6 myotubes*; Eur. J. Pharmacol., **642** 177
3) Tsuneki *et al*. (2019), *AS1949490, an inhibitor of 5'-lipid phosphatase SHIP2, promotes protein kinase C-dependent stabilization of brain-derived neurotrophic factor mRNA in cultured neurons*; Eur. J. Pharmacol., **851** 69
4) Saurus *et al.* (2017), *Inhibition of SHIP2 in CD2AP-deficient podocytes ameliorates reactive oxygen species generation but aggravates apoptosis*; Sci. Rep., **7** 10731

PHYSICAL DATA

Molecular Weight:	371.88
Molecular Formula:	$C_{20}H_{18}ClNO_2S$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 40 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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