

Product Data Sheet

Product Name: LDN-214117

Cat. No.: GC13225

Chemical Properties

Cas. No. 1627503-67-6

Chemical Name 1-(4-(6-methyl-5-(3,4,5-trimethoxyphenyl)pyridin-3-yl)phenyl)piperazine

SMILES CC(C(C1=CC(OC)=C(OC)C(OC)=C1)=C2)=NC=C2C(C=C3)=CC=C3N4CCNCC4

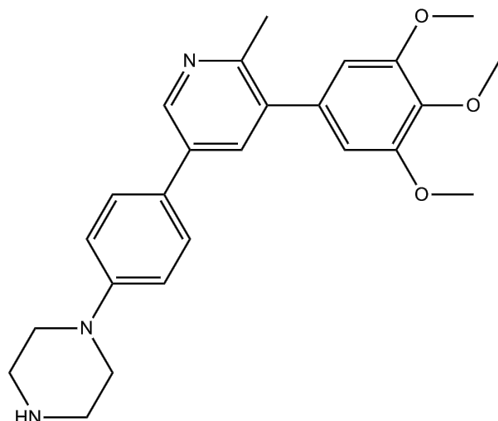
Formula $C_{25}H_{29}N_3O_3$ M.Wt 419.52

Solubility $\geq 90\text{mg/mL}$ in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

LDN-214117 is a potent and selective ALK2 inhibitor with IC_{50} of 22 nM; > 100 fold selectivity for ALK5; also inhibits BMP6 ($\text{IC}_{50}=100$ nM). IC_{50} value: 22 nM (ALK2) [1]. Target: ALK2 inhibitor. LDN-214117 is a highly BMP selective compound, significantly biased toward ALK2 and its cognate ligands including BMP6 and also demonstrates a high degree of kinase selectivity and low cytotoxicity. LDN-214117 may be useful as highly selective probes of BMP-mediated cellular

Caution: Product has not been fully validated for medical applications. For research use only.

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physiology that may provide a useful complement to the dorsomorphin class of compounds. Furthermore, this class of BMP inhibitors offers a structurally distinct template for the development of therapeutics for the treatment of BMP signaling-mediated diseases such as FOP.

References:

[1]. Mohedas AH, et al. Structure-activity relationship of 3,5-diaryl-2-aminopyridine ALK2 inhibitors reveals unaltered binding affinity for fibrodysplasia ossificans progressiva causing mutants. J Med Chem. 2014 Oct 9;57(19):7900-15.

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