

Product Data Sheet

Product Name: LDN-212854

Cat. No.: GC17035

Chemical Properties

Cas. No. 1432597-26-6

SMILES C1CN(CCN1)C2=CC=C(C=C2)C3=CN4C(=C(C=N4)C5=C6C=CC=NC6=CC=C5)N=C3

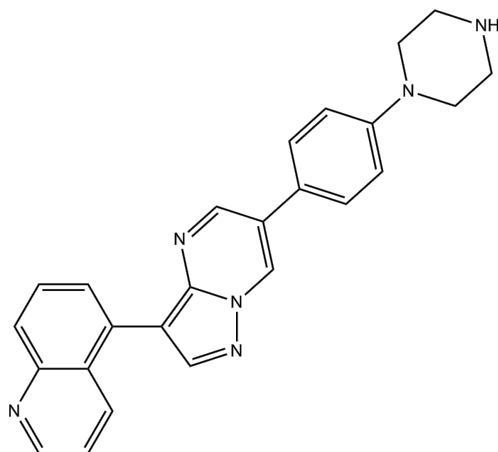
Formula $C_{25}H_{22}N_6$ M.Wt 406.48

Solubility $\geq 20.3\text{mg/mL}$ 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-212854 is a selective inhibitor of bone morphogenetic protein (BMP) signaling with IC_{50} value of 1.2nM [1].

In the kinase assay, LDN-212854 shows inhibitory activities against caALK2 and caALK5 with IC_{50} values of 16nM and $2\mu\text{M}$, respectively. It demonstrates that LDN-212854 is selective against BMP over TGF- β signaling. Besides that, the inhibition of caALK2 caused by LDN-212854 is 6- and 10-fold more potent than that of caALK1 and caALK3, respectively. In C2C12 cells transfected with BMP

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

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receptors, LDN-212854 also exerts preferential inhibition against caALK2. Furthermore, in a transgenic ALK2Q207D model of heterotopic ossification, treatment of LDN-212854 prevents the formation of heterotopic bone and preserves limb range of motion [1].

References:

[1] Mohedas A H, Xing X, Armstrong K A, et al. Development of an ALK2-biased BMP type I receptor kinase inhibitor. ACS chemical biology, 2013, 8(6): 1291-1302.

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