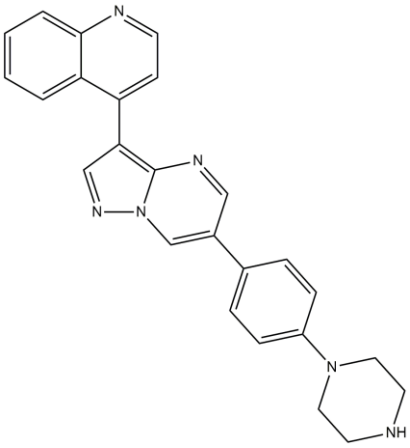
LDN-193189

08/20

ALTERNATE NAMES: 4-[6-(4-piperazin-1-ylphenyl)pyrazolo[1,5-a]pyrimidin-3-yl]quinoline

CATALOG #:
B3067-5 5 mg
B3067-25 25 mg

STRUCTURE:



MOLECULAR FORMULA: $C_{25}H_{22}N_6$

MOLECULAR WEIGHT: 406.5

CAS NUMBER: 1062368-24-4

APPEARANCE: Light yellow to yellow powder

PURITY: ≥98%

SOLUBILITY: 0.2 mg/ml in ethanol (may need warming and sonication)

DESCRIPTION: LDN-193189 inhibits the activity of the Bone Morphogenetic Protein (BMP) type I receptors ALK2 and ALK3 with IC_{50} values of 5 nM and 30 nM respectively and shows weaker effects on activin and the TGF-β type I receptors ALK4, ALK5 and ALK7 (IC_{50}≥ 500 nM). It inhibits the activation of the BMP signaling effectors SMAD1, SMAD5 and SMAD8 in a dose-dependent manner in C2C12 cells. LDN-193189 significantly reduces tumor growth in SCID mice bearing MDA-PCa-118b tumors.

STORAGE TEMPERATURE: -20ºC

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Lee, Y.C., Cheng, C.J., Bilen, M.A., et al. BMP4 promotes prostate tumor growth in bone through osteogenesis. Cancer Research 71(15), 5194-5203 (2011).
2. Yu, P.B., Deng, D.Y., Lai, C.S., et al. BMP type I receptor inhibition reduces heterotopic ossification. Nature Medicine 14(12), 1363-1369 (2008).
3. Boergermann, J.H, Kopf J., Yu, P.B., et al. Dorsomorphin and LDN-193189 inhibit BMP-mediated Smad, p38 and Akt signalling in C2C12 cells. Int J Biochem Cell Biol. 42(11): 1802–1807 (2010).

RELATED PRODUCTS:

LDN-193189 dihydrochloride (Cat. No. B2986)
LDN193189 (Cat. No. 1995)
EZSolution™ LDN193189 (Cat. No. 2092)
DMH-1 (Cat. No. 9542)
LDN-212854 (Cat. No. B2641)

DISCLAIMER: ***FOR RESEARCH USE ONLY! Not to be used on humans.***