For Research Use Only

LDN-193189 HCl

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Catalog Number: CM06625

产品信息

Catalog Number:
CM06625

CAS号:
1062368-62-0

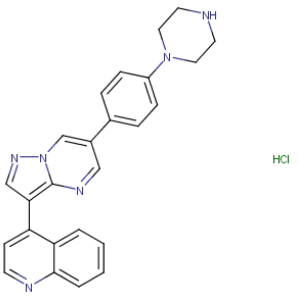
分子式:
$C_{25}H_{22}N_6$·HCl

主要靶点:
ALK

主要通路:
血管生成|蛋白酪氨酸激酶

分子量:
442.94

溶解度:
DMSO:10 mg/mL (22.58 mM),Sonification is recommended.



靶点活性

ALK6:16.7 nM|ALK1:0.8 nM|ALK3:5.3nM|ALK2:0.8nM

体外活性

LDN193189 potently inhibits BMP4-mediated Smad1, Smad5 and Smad8 activation with IC50 of 5 nM, and efficiently inhibits transcriptional activity of the BMP type I receptors ALK2 and ALK3 with IC50 of 5 nM and 30 nM, respectively. Furthermore, LDN193189 also shows the inhibitory effect on the transcriptional activity induced by either constitutively active ALK2R206H or ALK2Q207D mutant proteins. [1] A recent study shows that LDN-193189 blocks the production of reactive oxygen species induced by oxidized LDL during atherogenesis in human aortic endothelial cells. [4]

体内活性

In conditional caALK2-transgenic mice with Ad.Cre on on postnatal day 7 (P7), LDN-193189 (3 mg/kg i.p) leads to mild calcifications surrounding the left tibia and fibula first visible at P13, and prevents radiographic lesions at P15 without causing weight loss or growth retardation, spontaneous fractures, decreased bone density or behavioral abnormalities. [1] LDN193189 dorsalizes zebrafish embryos by inhibiting signaling pathways induced by bone morphogenetic protein (BMP)6 without effect on vascular development. [2] In PCa-118b tumor-bearing mice, LDN-193189 treatment attenuates tumor growth and reduces bone formation in the tumors. [3] In LDL receptor-deficient (LDLR-/-) mice, LDN-193189 potently inhibits development of atheroma. Moreover, LDN-193189 also exhibits the inhibitory effects on associated vascular inflammation, osteogenic activity, and calcification. [4]

细胞实验

Concentrations: 3 μM

描述

LDN193189 hydrochloride is a selective BMP type I receptor kinases inhibitor.

储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years

For technical support and original validation data for this product please contact
T: 027-87531629 E: Proteintech-CN@ptglab.com W: ptgcn.com