



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Data Sheet

Research Use Only

## Compound Name

LDN193189

## Catalog Number

SM23

## Alternative Names

LDN-193189, LDN 193189, 4-[6-[4-(1-Piperazinyl)phenyl]pyrazolo[1,5-a]pyrimidin-3-yl]-quinoline dihydrochloride

## Activity

LDN193189 is a highly potent small molecule inhibitor of bone morphogenetic protein (BMP) type I receptors ALK2 and ALK3. BMPs induce Smad1/5/8 plus non-Smad pathways, such as MAPK and Akt. BMP signaling pathway is the key regulator of cell fate decisions during embryogenesis and tissue homeostasis. It inhibits the activation of p38, ERK1/2 and Akt in C2C12 cells. LDN193189 only weakly inhibits ALK4, ALK5, and ALK7. LDN193189 affects not only the Smad but also the non-Smad signalling pathways induced by either BMP2, BMP6 or GDF5.

## Effect

LDN193189 inhibits ectopic ossification and it is a potential agent in the treatment of NSCLC lung tumors, showing significant *in vivo* clinical utility. LDN193189 has been used to reduce ectopic ossification in a mouse model of *fibrodysplasia ossificans progressiva*.

## Purity

>98%

## CAS

1062368-24-4

## Formula

C<sub>25</sub>H<sub>22</sub>N<sub>6</sub>

## Molecular Weight

406.48

## Solubility

Water

## Stability

Stable at -20°C. Keep away from direct sunlight.

## References

1. Yu, PB., et al. 2008. Nat Med. 14(12): 1363-1369. PMID: 19029982
2. Yu, PB., et al. 2008. Nat Chem Biol. 4(1): 33-41. PMID: 18026094
3. Cuny, GD. 2008. Bioorg Med Chem Lett. 18(15): 4388-4392. PMID: 18621530
4. Heisenberg, CP. and Solnica-Krezel, L. 2008. Curr Opin Genet Dev. 18(4): 311-316. PMID: 18721878