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# Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

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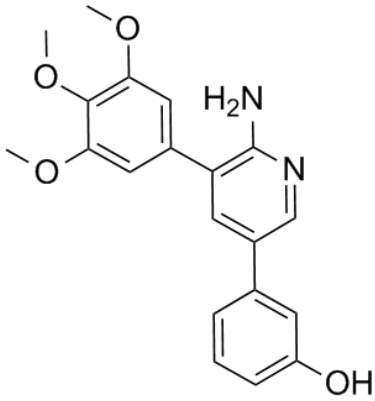
|---|---|---|
| **Product Name** | : | K02288 |
| **Cat. No.** | : | PC-42940 |
| **CAS No.** | : | 1431985-92-0 |
| **Molecular Formula** | : | $C_{20}H_{20}N_2O_4$ |
| **Molecular Weight** | : | 352.3838 |
| **Target** | : | TGF beta Receptor (TGFBR) |
| **Solubility** | : | DMSO: ≥ 58.6 mg/mL |




## Biological Activity

K02288 is a potent, selective inhibitor of **BMP signaling** with IC50 of 1.8/1.1/34.4/6.3 nM for ALK/1/2/3/6, displays 300-fold selectivity for ALK2 over the TGF-β receptor ALK5 and ALK4.
K02288 also wekaly inhibits type II BMP receptor ActRIIA (IC50=220 nM).
K02288 specifically inhibits the BMP-induced Smad pathway without affecting TGF-β signaling and induces dorsalization of zebrafish embryos.
K02288 inhibits BMP9-induced phosphorylation of SMAD1/5/8 in HUVECs to reduce both the SMAD and the Notch-dependent transcriptional responses, inhibits functional angiogenesis.

## References

Sanvitale CE, et al. ***PLoS One.*** 2013 Apr 30;8(4):e62721.

Mohedas AH, et al. ***J Med Chem.*** 2014 Oct 9;57(19):7900-15.

Kerr G, et al. ***Angiogenesis.*** 2015 Apr;18(2):209-17.

Windhausen T, et al. ***Molecules.*** 2015 Apr 24;20(5):7586-601.



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