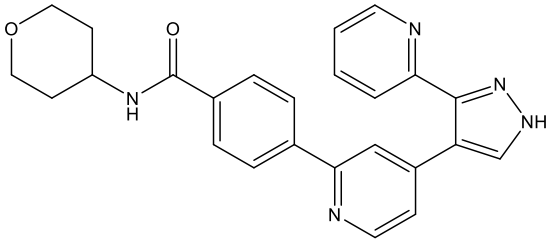
# Catalog # 10-5521
# GW788388

CAS# 452342-67-5

4-(4-(3-(Pyridin-2-yl)-1H-pyrazol-4-yl)pyridin-2-yl)-N-(tetrahydro-2H-pyran-4-yl)benzamide

Lot # X109569




GW788388 (452342-67-5) is a potent inhibitor of TGF-β receptor kinases ALK4, ALK5 ($IC_{50}$=18 nM), ALK7, and TGFβRII, but not BMP type II receptor kinase.[1,2] Blocks TGF-β-mediated signaling, including collagen type I and VEGF, in turn reducing fibrosis and angiogenesis in various mouse models.[3,4] GW788388 attenuates TGF-β-induced epithelial to mesenchymal transition (EMT) in human peritoneal mesothelial cells.[5]

References/Citations:


1) Gellibert *et al.* (2006), *Discovery of 4-{4-[3-(pyridine-2-yl)-1H-pyrazol-4-yl}pyridine-2-yl}-N-(tetrahydro-2H-pyran-4-yl)benzamide (GW788388): a potent, selective, and orally active transforming growth factor-beta type I receptor inhibitor*; J. Med. Chem. **49** 2210
2) Petersen *et al.* (2008), *Oral administration of GW788388, an inhibitor of TGF-beta type I and II receptor kinases, decreases renal fibrosis*; Kidney Int. **73** 705
3) De Oliveira *et al.* (2012), *Oral administration of GW788388, an inhibitor of transforming growth factor beta signaling, prevents heart fibrosis in Chagas disease*; PLoS Negl. Trop. Dis. **6** e1696
4) Noma *et al.* (2008), *The essential role of fibroblasts in esophageal squamous cell carcinoma-induced angiogenesis*; Gastroenterology. **134** 1981
5) Lho *et al.* (2021), *Effects of TGF-ß Receptor Inhibitor GW788388 on the Epithelial to Mesenchymal Transition of Peritoneal Mesothelial Cells*; Int. J. Mol. Sci. **22** 4739


## PHYSICAL DATA

| | |
|---|---|
| Molecular Weight: | 425.49 |
| Molecular Formula: | $C_{25}H_{23}N_5O_2$ |
| Purity: | >98% by HPLC |
| | NMR: (Conforms) |
| Solubility: | DMSO (18 mg/mL with warming) |
| Physical Description: | Off-white solid |
| Storage and Stability: | Store as supplied at -20° for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month. |

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