

Product Name: IN 1130

Catalog No.: 6016

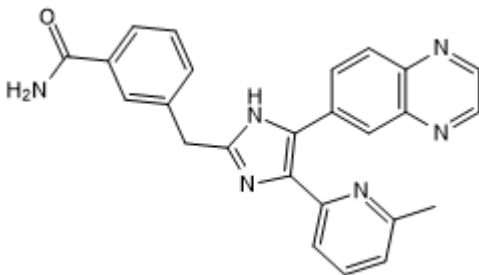
Batch No.: 1

CAS Number: 868612-83-3

IUPAC Name: 3-[[5-(6-Methyl-2-pyridinyl)-4-(6-quinoxaliny)-1*H*-imidazol-2-yl]methyl]benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅H₂₀N₆O·¼H₂O
Batch Molecular Weight: 424.97
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
 1eq. HCl to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.13 (Dichloromethane:Methanol [85:15])
HPLC: Shows >99.3% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.66	4.86	19.78
Found	70.79	4.78	19.96

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent and selective inhibitor of TGF- β type I receptor (ALK5). Inhibits Smad-2 phosphorylation (IC_{50} = 5.3 nM). Exhibits selectivity over a panel of 27 serine/ threonine and tyrosine kinases including P38 α . Attenuates TGF β /Smad signaling, cell migration, invasion, lung metastasis and increases survival of mice in 4TI in vivo models. Suppresses renal fibrosis in obstructive nephropathy in vivo models.

Physical and Chemical Properties:

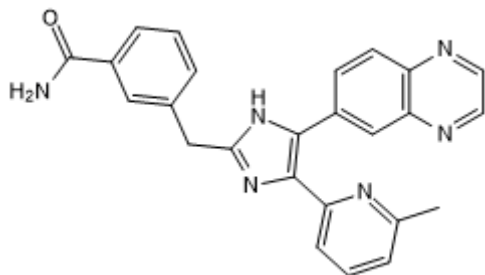
Batch Molecular Formula: C₂₅H₂₀N₆O.¼H₂O

Batch Molecular Weight: 424.97

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Park et al (2014) An novel inhibitor of TGF- β type I receptor, IN-1130, blocks breast cancer lung metastasis through inhibition of epithelial-mesenchymal transition. *Cancer Lett.* **351** 72. PMID: 24887560.

Lee et al (2008) Effect of IN-1130, a small molecule inhibitor of transforming growth factor-beta type I receptor/activin receptor-like kinase-5, on prostate cancer cells. *J.Urol.* **180** 2660. PMID: 18951571.

Moon et al (2006) IN-1130, a novel transforming growth factor-beta type I receptor kinase (ALK5) inhibitor, suppresses renal fibrosis in obstructive nephropathy. *Kidney Int.* **70** 1234. PMID: 16929250.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

1eq. HCl to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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