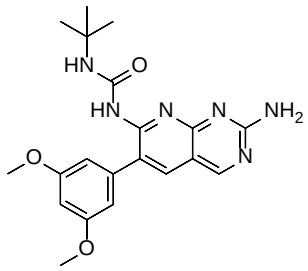
Product data sheet

MedKoo Cat#: 406475 Name: PD166866 CAS: 192705-79-6 Chemical Formula: $C_{20}H_{24}N_6O_3$ Exact Mass: 396.1910 Molecular Weight: 396.4430	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
PD166866 is a selective inhibitor of the FGF-1 receptor tyrosine kinase (FGFR1) with IC50 = 55 nM, and no effect on c-Src, PDGFR-b, EGFR or insulin receptor tyrosine kinases or MEK, PKC, and CDK4. PD166866 has clear antiproliferative effects.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	2.0	5.04
DMF:PBS (pH 7.2) (1:6)	0.14	0.35
DMSO	3.5	8.83
Ethanol	0.1	0.25

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.52 mL	12.61 mL	25.22 mL
5 mM	0.50 mL	2.52 mL	5.04 mL
10 mM	0.25 mL	1.26 mL	2.52 mL
50 mM	0.05 mL	0.25 mL	0.50 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Chen Y, Xie X, Li X, Wang P, Jing Q, Yue J, Liu Y, Cheng Z, Li J, Song H, Li G, Liu R, Wang J. FGFR antagonist induces protective autophagy in FGFR1-amplified breast cancer cell. Biochem Biophys Res Commun. 2016 May 20;474(1):1-7. doi: 10.1016/j.bbrc.2016.03.017. Epub 2016 Mar 16. PMID: 26993162.
2. Panek RL, Lu GH, Dahring TK, Batley BL, Connolly C, Hamby JM, Brown KJ. In vitro biological characterization and antiangiogenic effects of PD 166866, a selective inhibitor of the FGF-1 receptor tyrosine kinase. J Pharmacol Exp Ther. 1998 Jul;286(1):569-77. PMID: 9655904.

In vivo study

TBD

7. Bioactivity
Biological target:

PD166866 is a selective FGFR1 tyrosine kinase inhibitor with an IC50 of 52.4 nM.

Product data sheet

In vitro activity

PD 166866 was a potent inhibitor of basic fibroblast growth factor (bFGF)-mediated receptor autophosphorylation in NIH 3T3 cells expressing endogenous FGFR-1 and in L6 cells overexpressing the human FGFR-1 tyrosine kinase, confirming a tyrosine kinase-mediated mechanism. PD 166866 also inhibited bFGF-induced tyrosine phosphorylation of the 44- and 42-kDa (ERK 1/2) mitogen-activated protein kinase isoforms in L6 cells, presumably via inhibition of bFGF-stimulated FGFR-1 tyrosine kinase activation.

Reference: J Pharmacol Exp Ther. 1998 Jul;286(1):569-77. https://pubmed.ncbi.nlm.nih.gov/9655904/

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.