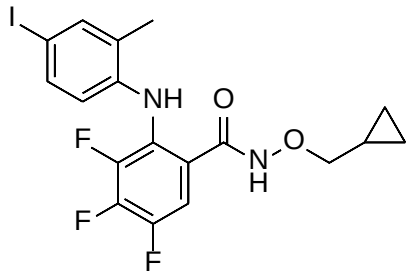
Product data sheet

MedKoo Cat#: 525904 Name: PD-198306 CAS: 212631-61-3 Chemical Formula: $C_{18}H_{16}F_3IN_2O_2$ Exact Mass: 476.0209 Molecular Weight: 476.2377	
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:
PD-198306 is a cell-permeable amino-benzamide compound that acts as a potent and non-ATP-competitive inhibitor of MEK1/2 (IC50 = 8 nM) with an excellent selectivity over ERK, c-Src, Cdk's, and PI 3-Kγ (IC50 >1.0 μM).

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
DMSO	47.62	100.0
Ethanol	47.62	100.0

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.10 mL	10.50 mL	21.00 mL
5 mM	0.42 mL	2.10 mL	4.20 mL
10 mM	0.21 mL	1.05 mL	2.10 mL
50 mM	0.04 mL	0.21 mL	0.42 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

TBD

In vivo study

1. Pelletier JP, Fernandes JC, Brunet J, Moldovan F, Schrier D, Flory C, Martel-Pelletier J. In vivo selective inhibition of mitogen-activated protein kinase kinase 1/2 in rabbit experimental osteoarthritis is associated with a reduction in the development of structural changes. Arthritis Rheum. 2003 Jun;48(6):1582-93. doi: 10.1002/art.11014. PMID: 12794826.
2. Ciruela A, Dixon AK, Bramwell S, Gonzalez MI, Pinnock RD, Lee K. Identification of MEK1 as a novel target for the treatment of neuropathic pain. Br J Pharmacol. 2003 Mar;138(5):751-6. doi: 10.1038/sj.bjp.0705103. PMID: 12642375; PMCID: PMC1573714.

7. Bioactivity
Biological target:

PD 198306 is a selective MAPK/ERK-kinase (MEK) inhibitor.

In vitro activity

TBD

Product data sheet

In vivo activity

Intrathecal administration of the selective MAPK/ERK-kinase (MEK) inhibitor PD 198306 dose-dependently (1-30 micro g) blocked static allodynia in both the streptozocin and the chronic constriction injury (CCI) rat models of neuropathic pain. The antihyperalgesic effects of PD 198306, in both the streptozocin and CCI models of neuropathic pain, correlated with a reduction in the elevated levels of active ERK1 and 2 in lumbar spinal cord.

Reference: Br J Pharmacol. 2003 Mar;138(5):751-6. https://pubmed.ncbi.nlm.nih.gov/12642375/

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.