

Product data sheet



MedKoo Cat#: 406164 Name: PD-173955 CAS: 260415-63-2 Chemical Formula: C ₂₁ H ₁₆ Cl ₂ N ₄ OS Exact Mass: 442.0422 Molecular Weight: 443.3489		
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-173955 is a src tyrosine kinase inhibitor. PD173955 inhibited Bcr-Abl-dependent cell growth. PD173955 showed cell cycle arrest in G(1). PD173955 has an IC(50) of 1-2 nM in kinase inhibition assays of Bcr-Abl, and in cellular growth assays it inhibits Bcr-Abl-dependent substrate tyrosine phosphorylation. PD173955 inhibited kit ligand-dependent c-kit autophosphorylation (IC(50) = approximately 25 nM) and kit ligand-dependent proliferation of M07e cells (IC(50) = 40 nM) but had a lesser effect on interleukin 3-dependent (IC(50) = 250 nM) or granulocyte macrophage colony-stimulating factor (IC(50) = 1 microM)-dependent cell growth.

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	1.0	2.26
DMSO	5.5	12.41

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.26 mL	11.28 mL	22.56 mL
5 mM	0.45 mL	2.26 mL	4.51 mL
10 mM	0.23 mL	1.13 mL	2.26 mL
50 mM	0.05 mL	0.23 mL	0.45 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. Windham TC, Parikh NU, Siwak DR, Summy JM, McConkey DJ, Kraker AJ, Gallick GE. Src activation regulates anoikis in human colon tumor cell lines. *Oncogene*. 2002 Nov 7;21(51):7797-807. doi: 10.1038/sj.onc.1205989. PMID: 12420216.

2. Moasser MM, Srethapakdi M, Sachar KS, Kraker AJ, Rosen N. Inhibition of Src kinases by a selective tyrosine kinase inhibitor causes mitotic arrest. *Cancer Res*. 1999 Dec 15;59(24):6145-52. PMID: 10626805.

In vivo study

TBD

7. Bioactivity

Biological target:

PD173955 is src family-selective tyrosine kinase inhibitor with IC50 of ~22 nM for for Src, Yes and Abl kinase.

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In vitro activity

This study studied the effects of PD173955, a novel src family-selective tyrosine kinase inhibitor, on cancer cell lines and found that it has significant antiproliferative activity due to a potent arrest of mitotic progression. The mitotic block occurs after chromosome condensation in prophase, before spindle assembly and without loss of cyclin A and B kinase activities. This effect is seen in cancer cell lines of all types with low or high activities of src kinases as well as in untransformed cell lines.

Reference: Cancer Res. 1999 Dec 15;59(24):6145-52. <https://pubmed.ncbi.nlm.nih.gov/10626805/>

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.