

Product data sheet



MedKoo Cat#: 462282 Name: DYRKs-IN-1 CAS: 1387090-01-8 Chemical Formula: C ₃₀ H ₃₀ ClN ₇ O ₄ Exact Mass: 587.2048 Molecular Weight: 588.065		
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:

DYRKs-IN-1 is a potent DYRKs (Dual-specificity tyrosine-phosphorylation-regulated kinases) inhibitor and has antitumor activity.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.70 mL	8.50 mL	17.00 mL
5 mM	0.34 mL	1.70 mL	3.40 mL
10 mM	0.17 mL	0.85 mL	1.70 mL
50 mM	0.03 mL	0.17 mL	0.34 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. Anderson K, Chen Y, Chen Z, Dominique R, Glenn K, He Y, Janson C, Luk KC, Lukacs C, Polonskaia A, Qiao Q, Railkar A, Rossman P, Sun H, Xiang Q, Vilenchik M, Wovkulich P, Zhang X. Pyrido[2,3-d]pyrimidines: discovery and preliminary SAR of a novel series of DYRK1B and DYRK1A inhibitors. *Bioorg Med Chem Lett*. 2013 Dec 15;23(24):6610-5. doi: 10.1016/j.bmcl.2013.10.055. Epub 2013 Nov 1. PMID: 24239188.

In vivo study

TBD

7. Bioactivity

Biological target:

DYRKs-IN-1 is a potent DYRKs (Dual-specificity tyrosine-phosphorylation-regulated kinases) inhibitor with IC₅₀s of 5 nM and 8 nM for DYRK1A and DYRK1B, respectively.

In vitro activity

From a data-mining effort, the team has discovered analogues of pyrido[2,3-d]pyrimidines as potent enantio-selective inhibitors of DYRK1B. Cells treated with a tool compound from this series showed the same cellular effects as down regulation of DYRK1B with siRNA.

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Reference: Bioorg Med Chem Lett. 2013 Dec 15;23(24):6610-5. <https://pubmed.ncbi.nlm.nih.gov/24239188/>

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.