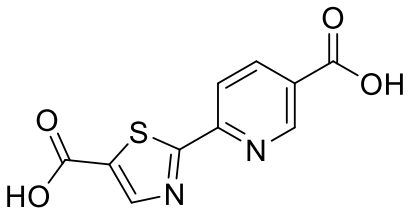


# Product data sheet



MedKoo Cat#: 563631 Name: pythiDC CAS: 1821370-71-1 Chemical Formula: C <sub>10</sub> H <sub>6</sub> N <sub>2</sub> O <sub>4</sub> S Exact Mass: 250.0048 Molecular Weight: 250.23		
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:

PythiDC is a selective inhibitor of collagen prolyl 4-hydroxylase, neither causing general toxicity nor disrupting iron homeostasis.

## 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	4.9	19.58

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.00 mL	19.98 mL	39.96 mL
5 mM	0.80 mL	4.00 mL	7.99 mL
10 mM	0.40 mL	2.00 mL	4.00 mL
50 mM	0.08 mL	0.40 mL	0.80 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

- Robinson AD, Chakravarthi BVSK, Agarwal S, Chandrashekar DS, Davenport ML, Chen G, Manne U, Beer DG, Edmonds MD, Varambally S. Collagen modifying enzyme P4HA1 is overexpressed and plays a role in lung adenocarcinoma. *Transl Oncol.* 2021 Aug;14(8):101128. doi: 10.1016/j.tranon.2021.101128. Epub 2021 May 25. PMID: 34049151; PMCID: PMC8170159.

### In vivo study

- Agarwal S, Behring M, Kim HG, Bajpai P, Chakravarthi BVSK, Gupta N, Elkholy A, Al Diffalha S, Varambally S, Manne U. Targeting P4HA1 with a Small Molecule Inhibitor in a Colorectal Cancer PDX Model. *Transl Oncol.* 2020 Apr;13(4):100754. doi: 10.1016/j.tranon.2020.100754. Epub 2020 Mar 18. Erratum in: *Transl Oncol.* 2021 Nov;14(11):101142. PMID: 32199274; PMCID: PMC7082635.

## 7. Bioactivity

### Biological target:

PythiDC is a selective CP4H1 inhibitor with an IC<sub>50</sub> value of 4.0 μM. It is selective for CP4H1 over hypoxia-inducible factor prolyl hydroxylase 2 (HIF-PH2) at 10 μM.

### In vitro activity

PythiDC decreased the malignant phenotypes of lung cancer cell lines in vitro.

# Product data sheet



Reference: Transl Oncol. 2021 Aug;14(8):101128. <https://pubmed.ncbi.nlm.nih.gov/34049151/>

## In vivo activity

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PythiDC treatment of colorectal cancer patient-derived xenografts that exhibited high expression of P4HA1 resulted in tumor regression. P4HA1 contributes to colorectal cancer progression and metastasis and that targeting P4HA1 with pythiDC could be an effective therapeutic strategy for aggressive colorectal cancers.

Reference: Transl Oncol. 2020 Apr;13(4):100754. <https://pubmed.ncbi.nlm.nih.gov/32199274/>

*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.*