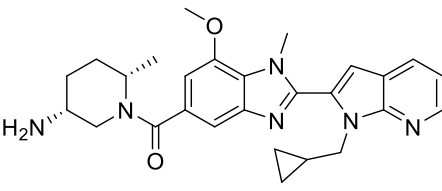


Product data sheet



MedKoo Cat#: 555900 Name: BMS-P5 free base CAS#: 1550371-22-6 (free base) Chemical Formula: C ₂₇ H ₃₂ N ₆ O ₂ Exact Mass: 472.2587 Molecular Weight: 472.593		
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:

BMS-P5 is a Novel Peptidylarginine Deiminase 4 (PAD4) Inhibitor with pIC₅₀ values in the range of 5-7.5. BMS-P5 Blocks Formation of Neutrophil Extracellular Traps and Delays Progression of Multiple Myeloma. Administration of BMS-P5 to multiple myeloma-bearing mice delays appearance of symptoms and disease progression Targeting PAD4 may be beneficial for treatment of multiple myeloma.

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	127.5	269.79
DMF	20.0	42.32
Ethanol	30.0	63.48
Ethanol:PBS (pH 7.2) (1:8)	0.11	0.23

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.12 mL	10.58 mL	21.16 mL
5 mM	0.42 mL	2.12 mL	4.23 mL
10 mM	0.21 mL	1.06 mL	2.12 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

1. Li M, Lin C, Deng H, Strnad J, Bernabei L, Vogl DT, Burke JJ, Nefedova Y. A Novel Peptidylarginine Deiminase 4 (PAD4) Inhibitor BMS-P5 Blocks Formation of Neutrophil Extracellular Traps and Delays Progression of Multiple Myeloma. Mol Cancer Ther. 2020 Jul;19(7):1530-1538. doi: 10.1158/1535-7163.MCT-19-1020. Epub 2020 May 5. PMID: 32371579; PMCID: PMC7335350.

In vivo study

1. Li M, Lin C, Deng H, Strnad J, Bernabei L, Vogl DT, Burke JJ, Nefedova Y. A Novel Peptidylarginine Deiminase 4 (PAD4) Inhibitor BMS-P5 Blocks Formation of Neutrophil Extracellular Traps and Delays Progression of Multiple Myeloma. Mol Cancer Ther. 2020 Jul;19(7):1530-1538. doi: 10.1158/1535-7163.MCT-19-1020. Epub 2020 May 5. PMID: 32371579; PMCID: PMC7335350.

Product data sheet



7. Bioactivity

Biological target:

BMS-P5 free base is a specific and orally active peptidylarginine deiminase 4 (PAD4) inhibitor.

In vitro activity

BMS-P5 (Fig. 3A) is a potent selective pharmacological inhibitor of PAD4 (Supplementary Table 1) and was used to evaluate the effect of PAD4 inhibition on MM-induced NET formation.

Reference: Mol Cancer Ther. 2020 Jul;19(7):1530-1538. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7335350/>

In vivo activity

DP42-bearing mice were treated with BMS-P5 or vehicle control and the onset of disease symptoms (paralysis and hunched posture) and mice survival were evaluated. Administration of BMS-P5 significantly delayed development of symptoms (Fig. 6A) and significantly prolonged survival of MM-bearing mice (Fig. 6B).

Reference: Mol Cancer Ther. 2020 Jul;19(7):1530-1538. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7335350/>

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.