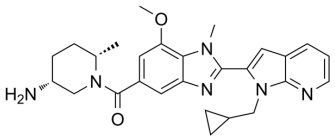
BMS-P5 free base

Cat. No.:	HY-137655A
CAS No.:	1550371-22-6
Molecular Formula:	$C_{27}H_{32}N_6O_2$
Molecular Weight:	472.58
Target:	Protein Arginine Deiminase
Pathway:	Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (529.01 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1160 mL	10.5802 mL	21.1604 mL
	5 mM	0.4232 mL	2.1160 mL	4.2321 mL
	10 mM	0.2116 mL	1.0580 mL	2.1160 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.40 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BMS-P5 free base is a specific and orally active peptidylarginine deiminase 4 (PAD4) inhibitor. BMS-P5 free base blocks MM-induced NET formation and delays progression of MM in a syngeneic mouse model[1].

In Vitro

BMS-P5 blocks calcium ionophore-induced citrullination of histone H3[1].
BMS-P5 is also able to inhibit formation of NETs induced by primary MM cells isolated from the BM of patients with MM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Cell Viability Assay[1].

Cell Line:	Neutrophils.
Concentration:	10 μM and 100 μM.
Incubation Time:	30 min followed by addition of DP42 or 5TGM1 CM.
Result:	Prevented MM-induced NET formation.

In Vivo

BMS-P5 (50 mg/kg, oral gavage) significantly improves survival of MM-bearing mice[1].
BMS-P5 (50 mg/kg, oral gavage) may attenuate the presence of pro-tumorigenic proteins in the tumor microenvironment, and thus delay tumor progression[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Syngeneic mouse model of MM[1].
Dosage:	50 mg/kg.
Administration:	Oral gavage, twice a day beginning on day 3 after tumor cell injection.
Result:	Significantly delayed development of symptoms and significantly prolonged survival of MM-bearing mice.

REFERENCES

[1]. Marina Li, et al. 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA