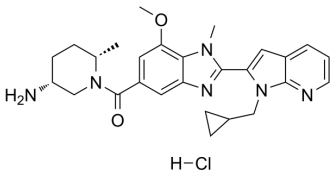
BMS-P5

Cat. No.:	HY-137655
CAS No.:	1549811-36-0
Molecular Formula:	$C_{27}H_{33}ClN_6O_2$
Molecular Weight:	509.04
Target:	Protein Arginine Deiminase
Pathway:	Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

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

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