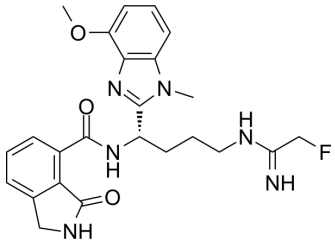
AFM-30a

Cat. No.:	HY-125099
CAS No.:	2095107-57-4
Molecular Formula:	$C_{24}H_{27}FN_6O_3$
Molecular Weight:	466.51
Target:	Protein Arginine Deiminase
Pathway:	Epigenetics
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	AFM-30a is a potent protein arginine deiminase 2 (PAD2) inhibitor and has excellent PAD2-selectivity. AFM-30a binds to PAD2 with an EC_{50} value of 9.5 μM. AFM-30a also inhibits H3 citrullination with an EC_{50} value of 0.4 μM. AFM-30a can be used for the research of certain cancers and a variety of autoimmune diseases including rheumatoid arthritis (RA), multiple sclerosis, lupus, and ulcerative colitis[1].
IC_{50} & Target	PAD2
In Vitro	AFM-30a (compound 30a; 25 μM) has good potency to enter HEK293T/PAD2 cells and covalent modify PAD2 with an EC_{50} of 9.5 μM[1]. AFM-30a shows good ability to inhibit H3 citrullination with an EC_{50} of 0.4 μM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	AFM-30a suppresses NLRP3 signaling and decreases airway remodeling in PAD2$^{-/-}$transgenic mice[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	HEK293T/PAD2 cells
Concentration:	Various concentrations
Incubation Time:	24 h
Result:	Exhibited low cytotoxicity for cells.

REFERENCES

[1]. Aaron Muth, et al. Development of a Selective Inhibitor of Protein Arginine Deiminase 2. J Med Chem. 2017 Apr 13;60(7):3198-3211.

[2]. R. Surolia, et al. Role of PAD2 Regulated Inflammasome Signaling in Arsenic Induced Airway Inflammation and Remodeling. American Journal of Respiratory and Critical Care Medicine 2020;201:A2976.

Caution: Product has not been fully validated for medical applications. For research use only.

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