NFATc1-IN-1

Cat. No.: HY-147369

CAS No.: 1912422-56-0

Molecular Formula: $C_{13}H_8F_2INO_2$

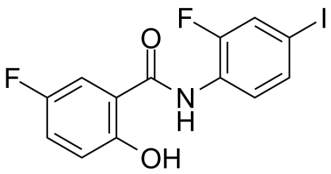
Molecular Weight: 375.11

Target: Nuclear Factor of activated T Cells (NFAT)

Pathway: Immunology/Inflammation

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 : 125 mg/mL (333.24 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6659 mL	13.3294 mL	26.6588 mL
	5 mM	0.5332 mL	2.6659 mL	5.3318 mL
	10 mM	0.2666 mL	1.3329 mL	2.6659 mL

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

BIOLOGICAL ACTIVITY

Description

NFATc1-IN-1 (compound A04) is a potent inhibitor of RANKL-induced osteoclast formation, with an IC_{50} of 1.57 μM. NFATc1-IN-1 shows anti-osteoclastogenic effects through reducing the RANKL-induced nuclear translocation of NFATc1. NFATc1-IN-1 can be used for osteoclastic diseases research[1].

In Vitro

NFATc1-IN-1 (compound A04) (0-2.5 μM, 4 days) exhibits potent inhibitory activities on osteoclast formation and function, which eventually translates into decreased bone resorption[1].

NFATc1-IN-1 (1.5-2.5 μM, 24 h) blocks NFATc1 nuclear translocation and decreases the level of NFATc1[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Osteoclast precursor RAW 264.7 cells
Concentration:	0, 0.5, 1.0, 1.5, 2.0 and 2.5 μM
Incubation Time:	4 days

Result:	Markedly reduced the number and size of red TRAP-positive multinucleated osteoclasts at concentrations of 1.5, 2.0, and 2.5 μM. Significantly inhibited formation of osteoclasts in a dose-dependent manner (at 1.5, 2.0 and 2.5 μM), while showing no cytotoxic effects towards osteoclast precursor cells at concentrations of as high as 2.5 μM.
Immunofluorescence[1]	
Cell Line:	RAW264.7 cells
Concentration:	1.5 or 2.5 μM
Incubation Time:	24 h
Result:	Blocked NFATc1 nuclear translocation and decreased the level of NFATc1.

REFERENCES

[1]. Chen CL, et al. Design, synthesis and SARs of novel salicylanilides as potent inhibitors of RANKL-induced osteoclastogenesis and bone resorption. Eur J Med Chem. 2016 Jul 19;117:70-84.

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