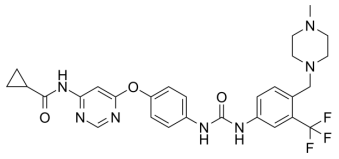
WS3

Cat. No.:	HY-12462
CAS No.:	1421227-52-2
Molecular Formula:	$C_{28}H_{30}F_3N_7O_3$
Molecular Weight:	569.58
Target:	Others
Pathway:	Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 2.2 mg/mL (3.86 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.7557 mL	8.7784 mL	17.5568 mL
5 mM	---	---	---
10 mM	---	---	---

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

In Vivo

1. Add each solvent one by one: 50% PEG300 >> 50% saline
   Solubility: 3.33 mg/mL (5.85 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

WS3 is a novel proliferative molecule that promotes pancreatic β cell proliferation in rodent and human primary islets. WS3 can be used for the research of type 1 diabetes[1].

IC_{50} & Target

IC50: 0.28 μM (β cell proliferation)[1]

In Vitro

WS3 induces pancreatic R7T1 β cell proliferation in dose response, with an EC_{50} value of 0.28 μM[1].
WS3 (1.0 nM-1.0 μM) reversibly proliferate primary retinal pigment epithelial (RPE) cells isolated from fetal and adult human donors. Following withdrawal of WS3, RPE cells differentiate into a functional monolayer, as exhibited by their expression of mature RPE genes and phagocytosis of photoreceptor outer segments[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Shen W, et al. Small-molecule inducer of β cell proliferation identified by high-throughput screening. J Am Chem Soc. 2013 Feb 6;135(5):1669-72.

[2]. Jonathan G Swoboda, et al. Small molecule mediated proliferation of primary retinal pigment epithelial cells. ACS Chem Biol. 2013 Jul 19;8(7):1407-11.

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