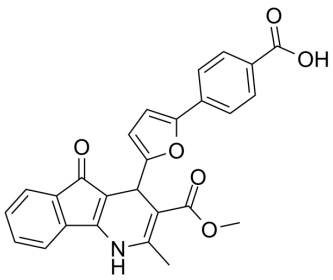
Sortin1

Cat. No.:	HY-12827		
CAS No.:	503837-98-7		
Molecular Formula:	$C_{26}H_{19}NO_6$		
Molecular Weight:	441.43		
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 : 100 mg/mL (226.54 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2654 mL	11.3268 mL	22.6536 mL
	5 mM	0.4531 mL	2.2654 mL	4.5307 mL
	10 mM	0.2265 mL	1.1327 mL	2.2654 mL

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

BIOLOGICAL ACTIVITY

Description

Sortin1 is a chemical genetic-hit molecule that causes specific mislocalization of plant and yeast-soluble and membrane vacuolar markers.IC50 value:Target: Vacuolar markersin vitro: In Arabidopsis seedlings, application of Sortin1 and -2 led to reversible defects in vacuole biogenesis and root development. Sortin1 was found to redirect the vacuolar destination of plant carboxypeptidase Y and other proteins in Arabidopsis suspension cells and cause these proteins to be secreted. Sortin1 treatment of whole Arabidopsis seedlings also resulted in carboxypeptidase Y secretion, indicating that the drug has a similar mode of action in cells and intact plants [1]. Structure-activity relationship studies conducted in Arabidopsis revealed the structural requirements for Sortin1 bioactivity and demonstrated that overlapping Sortin1 substructures can be used to discriminate between vacuolar-flavonoid accumulations and vacuolar-biogenesis defects [2].

REFERENCES

[1]. Zouhar J, et al. Sorting inhibitors (Sortins): Chemical compounds to study vacuolar sorting in Arabidopsis. Proc Natl Acad Sci U S A. 2004 Jun 22;101(25):9497-501.

[2]. Rosado A, et al. Sortin1-hypersensitive mutants link vacuolar-trafficking defects and flavonoid metabolism in Arabidopsis vegetative tissues. Chem Biol. 2011 Feb

25;18(2):187-97.

[3]. Orr DJ, et al. 1H NMR-based metabolomics methods for chemical genomics experiments. Methods Mol Biol. 2014;1056:225-39.

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