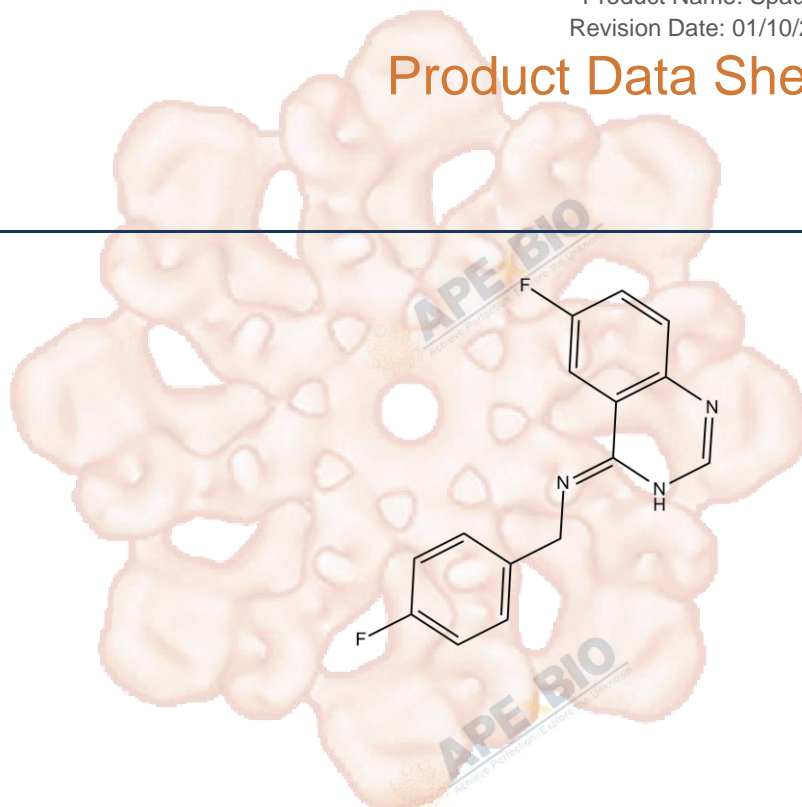


Product Data Sheet

Spautin-1

Cat. No.:	B5873
CAS No.:	1262888-28-7
Formula:	C ₁₅ H ₁₁ F ₂ N ₃
M.Wt:	271.26
Synonyms:	
Target:	Ubiquitination/ Proteasome
Pathway:	Autophagy
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥13.5 mg/mL in DMSO; ≥5.51 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	3.6865 mL	18.4325 mL	36.8650 mL
	5 mM	0.7373 mL	3.6865 mL	7.3730 mL
	10 mM	0.3687 mL	1.8433 mL	3.6865 mL

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

Biological Activity

Shortsummary

Novel autophagy inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Mouse MEF cells
Preparation method:	The solubility of this compound in DMSO is > 13.5 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	4 h, 10 μM

	Applications:	Spatin-1 is a potent and specific small molecule inhibitor of autophagy. Spautin-1 inhibits two ubiquitin-specific peptidases, USP10 and USP13 (IC50 values of 0.6 and 0.7 μ M respectively), and promotes the ubiquitination and degradation of Vps34 PI3 kinase complexes, leading to an inhibition of autophagy.
In Vivo	Animal experiment	
	Animal models:	Female KunMing (KM) mice
	Dosage form:	Intraperitoneal injection, 2 mg/kg
	Applications:	Pretreating mice with spautin-1 significantly reduced the elevation of serum lipase and amylase levels, which are indicators of trypsin activity. Spautin-1 also inhibited the increasing levels of serum TNF α induced by cerulein.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Yeo SK, Paul R, et al. "Improved efficacy of mitochondrial disrupting agents upon inhibition of autophagy in a mouse model of BRCA1-deficient breast cancer." *Autophagy*. 2018;14(7):1214-1225.PMID:29938573

See more customer validations on www.apexbt.com.

References

- [1]. Liu J, Xia H, Kim M, et al. Beclin1 controls the levels of p53 by regulating the deubiquitination activity of USP10 and USP13[J]. *Cell*, 2011, 147(1): 223-234.
- [2]. Xiao J, Feng X, Huang X Y, et al. Spautin-1 ameliorates acute Pancreatitis via inhibiting impaired autophagy and alleviating Calcium Overload[J]. *Molecular Medicine*, 2016, 22: 643.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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