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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

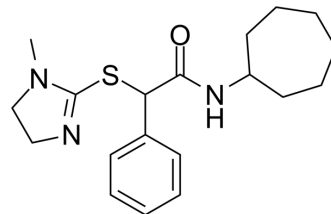
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Apostatin-1

Cat. No.:	HY-134050
CAS No.:	2559703-06-7
Molecular Formula:	C ₁₉ H ₂₇ N ₃ OS
Molecular Weight:	345.5
Target:	RIP kinase; Apoptosis; Autophagy; Beclin1; Necroptosis
Pathway:	Apoptosis; Autophagy
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 : 83.33 mg/mL (241.19 mM; ultrasonic and warming and adjust pH to 4 with HCl and heat to 80°C)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.8944 mL	14.4718 mL	28.9436 mL
	5 mM		0.5789 mL	2.8944 mL	5.7887 mL
	10 mM		0.2894 mL	1.4472 mL	2.8944 mL

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

BIOLOGICAL ACTIVITY

Description

Apostatin-1 (Apt-1) is a potent TRADD inhibitor. Apostatin-1 can bind with TRADD-N ($K_D=2.17 \mu\text{M}$), disrupting its binding to both TRADD-C and TRAF2. Apostatin-1 modulates the ubiquitination of RIPK1 and beclin 1. Apostatin-1 blocks apoptosis and restores cellular homeostasis by activating autophagy in cells with accumulated mutant tau, α -synuclein, or huntingtin^[1].

IC₅₀ & Target

RIPK1

In Vitro

Apostatin-1 inhibits Velcade ([Bortezomib](#), HY-134050)-induced apoptosis and RIPK1-dependent apoptosis (RDA) and necroptosis, with an IC₅₀ of 0.97 μM ^[1].

?Apostatin-1 (10 μM , 6 h) effectively induces autophagy and the degradation of long-lived proteins^[1].

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

Western Blot Analysis^[1]

Cell Line: SH-SY5Y, HeLa, HT-29, and Jurkat cells

Concentration: 10 μM

	Incubation Time:	6 h
	Result:	Effectively induced autophagy by LC3 II induction and p62 reduction.
In Vivo	Apostatin-1 (20 mg/kg, IP, once) inhibits inflammatory responses, and increases survival of systemic inflammation mouse model^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Wild-type mice (n = 10, male, 8 weeks of age, systemic inflammation mouse model) ^[1]
	Dosage:	20 mg/kg
	Administration:	IP, once
	Result:	Reduced expression of the TNF-induced inflammatory target gene products, NOS and COXII27, and of inflammatory cytokines in cells stimulated with pathogen-associated molecular patterns, including interferon γ (IFN γ), lipopolysaccharide (LPS), Pam3CSK4 (a synthetic bacterial lipopeptide), and muramyl dipeptide (MDP). Showed increased survival following intravenous delivery of TNF, a mouse model of systemic inflammation.

REFERENCES

[1]. Xu D, et al. Modulating TRADD to restore cellular homeostasis and inhibit apoptosis. Nature. 2020 Nov;587(7832):133-138.

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