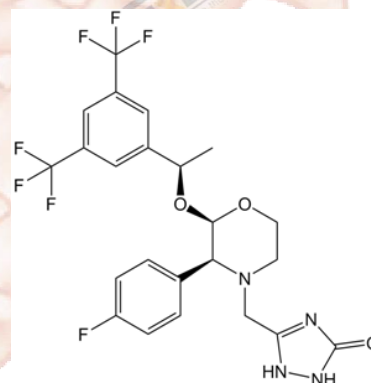


Product Data Sheet

Aprepitant

Cat. No.:	A1684
CAS No.:	170729-80-3
Formula:	C ₂₃ H ₂₁ F ₇ N ₄ O ₃
M.Wt:	534.43
Synonyms:	
Target:	Neuroscience
Pathway:	Substance P/NK1 Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥26.72 mg/mL in DMSO; insoluble in H₂O; insoluble in EtOH

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		1.8712 mL	9.3558 mL	18.7115 mL
	5 mM		0.3742 mL	1.8712 mL	3.7423 mL
	10 mM		0.1871 mL	0.9356 mL	1.8712 mL

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

Biological Activity

Shortsummary

Substance P (SP) inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Nalm-6 cells
Preparation method:	The solubility of this compound in DMSO is >26.7mg/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:	20 μM

	Applications:	Aprepitant decreased the metabolic activity with an estimated IC50 value of 20 μ M. Aprepitant induced cell-growth inhibition and G1 cell-cycle arrest. Aprepitant significantly induced apoptosis in Nalm-6 cells. Aprepitant (20 μ M) induced p53 accumulation and expression of pro-apoptotic p53 target genes.
In Vivo	Animal experiment	
	Animal models:	Male C57BL/6J mice
	Dosage form:	Intraperitoneal injection, 10 mg/kg
	Applications:	Aprepitant (10 mg/kg, i.p.) significantly attenuated AMPH-induced CPP expression and locomotor activation produced by AMPH and cocaine in mice. Aprepitant significantly enhanced the expression of CPP produced by morphine while significantly suppressing the locomotor activity of the mice conditioned with morphine.
	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

See more customer validations on www.apexbt.com.

References

- [1]. Bayati S, Bashash D, Ahmadian S, et al. Inhibition of tachykinin NK 1 receptor using aprepitant induces apoptotic cell death and G1 arrest through Akt/p53 axis in pre-B acute lymphoblastic leukemia cells[J]. European journal of pharmacology, 2016, 791: 274-283.
- [2]. Mannangatti P, Sundaramurthy S, Ramamoorthy S, et al. Differential effects of aprepitant, a clinically used neurokinin-1 receptor antagonist on the expression of conditioned psychostimulant versus opioid reward[J]. Psychopharmacology, 2017, 234(4): 695-705.

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 APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm 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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