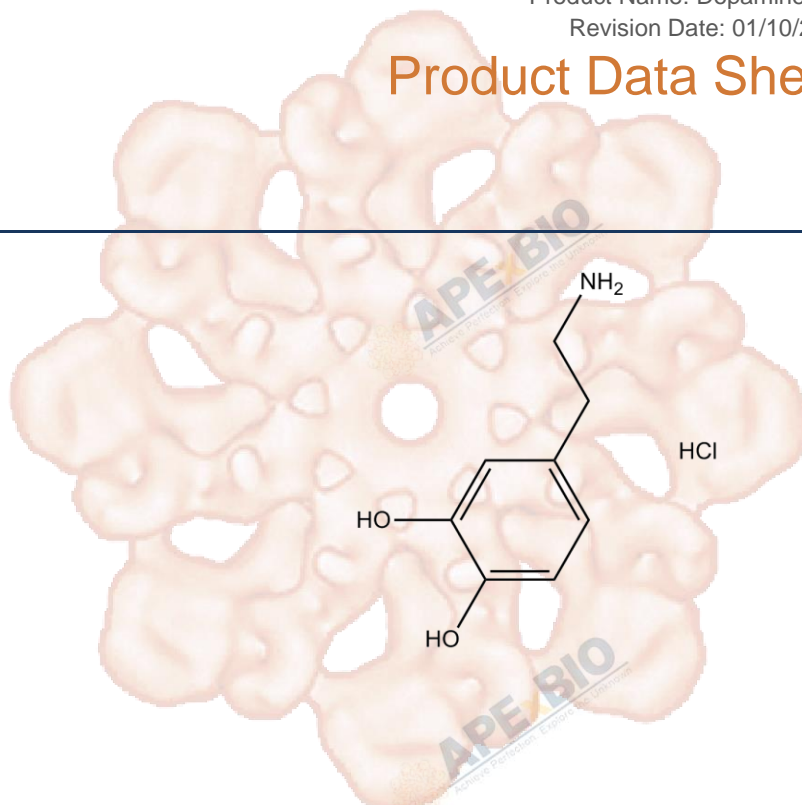


Product Data Sheet

Dopamine HCl

Cat. No.:	B1482
CAS No.:	62-31-7
Formula:	C ₈ H ₁₁ NO ₂ ·HCl
M.Wt:	189.64
Synonyms:	
Target:	Neuroscience
Pathway:	Dopamine Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥24.9 mg/mL in H₂O; ≥3.16 mg/mL in EtOH with ultrasonic; ≥9.48 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		5.2731 mL	26.3657 mL	52.7315 mL
	5 mM		1.0546 mL	5.2731 mL	10.5463 mL
	10 mM		0.5273 mL	2.6366 mL	5.2731 mL

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

Biological Activity

Shortsummary

Dopamine D1-5 receptors agonist

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Strial marginal cells
Preparation method:	The solubility of this compound in DMSO is > 10 mM. 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:	10 mM

	Applications:	In untreated normal strial marginal cells, the reaction product of Na-KATPase could be detectable. However, it became almost completely undetectable after an in vitro treatment with 10 mM Dopamine HCl. These results suggested that Dopamine HCl directly inhibited the Na-KATPase activity of strial marginal cells which might express dopamine receptors.
In Vivo	Animal experiment	
	Animal models:	SD rats
	Dosage form:	100 mg/kg; i.p.
	Applications:	In SD rats, Dopamine HCl treatment for 15 mins did not cause any reduction in degree of catatonia. The maximum score of Dopamine HCl treatment after 150 mins was only 3.5. It was suggested that Dopamine HCl did not cross the blood brain barrier and therefore, could not exert significant effect on drug-induced catatonia.
	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]. Kanoh N, Ogasawara H, Mohri D, Fukazawa K, Sakagami M. Cytochemical effects of in vitro dopamine treatment on the Na-KATPase activity in strial marginal cells. Acta Otolaryngol. 1996 Nov;116(6):824-7.
- [2]. Jain NK, Rana AC, Jain SK. Brain drug delivery system bearing dopamine hydrochloride for effective management of parkinsonism. Drug Dev Ind Pharm. 1998 Jul;24(7):671-5.

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. 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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