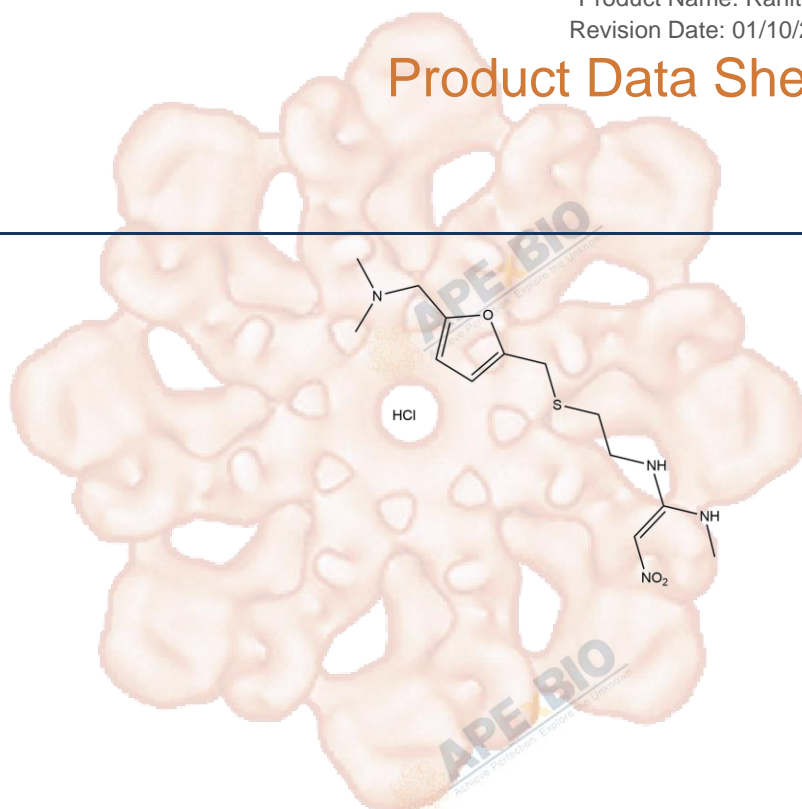


Product Data Sheet

Ranitidine

Cat. No.:	B1564
CAS No.:	66357-59-3
Formula:	C ₁₃ H ₂₂ N ₄ O ₃ S·HCl
M.Wt:	350.86
Synonyms:	
Target:	Neuroscience
Pathway:	Histamine Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥17.54 mg/mL in DMSO; ≥3.46 mg/mL in EtOH with ultrasonic; ≥99 mg/mL in H₂O

In Vitro

	Solvent	Mass	1mg	5mg	10mg
Preparing Stock Solutions	Concentration				
	1 mM		2.8501 mL	14.2507 mL	28.5014 mL
	5 mM		0.5700 mL	2.8501 mL	5.7003 mL
	10 mM		0.2850 mL	1.4251 mL	2.8501 mL

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

Biological Activity

Shortsummary

Histamine H₂-receptor antagonist

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	SVN neurons
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:	1 μM

	Applications:	Ranitidine at 1 μM potentially blocked the excitatory responses of SVN neurons to histamine (1 ~ 30 μM). Ranitidine significantly reduced the 23.6%, 35.1% and 48.7% increases in the peak firing rate induced by 1, 3 and 10 μM histamine to 7.1%, 13.7% and 18.3%, respectively. In addition, Ranitidine (1 μM) in combination with Mepyramine (1 μM) almost completely blocked the histamine-induced excitation.
In Vivo	Animal experiment	
	Animal models:	Wistar rats
	Dosage form:	25 mg/mL, 2 drops
	Applications:	In Wistar rats, Ranitidine induced progressive vasoconstriction, with a maximum of 27% decrease in the vascular diameter at 300th s. The administration of histamine after Ranitidine increased the vascular diameter which was relative to the value at 300th s. However, at 600th s, the vascular diameter still could not reach the initial value (at 0th s).
	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]. Zhuang QX, Wu YH, Wu GY, Zhu JN, Wang JJ. Histamine excites rat superior vestibular nuclear neurons via postsynaptic H1 and H2 receptors in vitro. Neurosignals. 2013;21(3-4):174-83.
- [2]. Coman OA, Rotar C, Stoleru S, Ghi-Cristescu I, Punesu H, Fulga I. Influencing vascular reactivity in vivo by histaminergic agonists and antagonists. Rom J Morphol Embryol. 2007;48(4):403-6.

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.



APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

