

Product Data Sheet

Thonzonium Bromide

Cat. No.: B4962
CAS No.: 553-08-2
Formula: C32H55BrN4O
M.Wt: 591.71
Synonyms:
Target:
Pathway:
Storage: Store at -20°C



Solvent & Solubility

≥53.5 mg/mL in DMSO; ≥121.2 mg/mL in EtOH; ≥62.1 mg/mL in H₂O

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		1.6900 mL	8.4501 mL	16.9002 mL
	5 mM		0.3380 mL	1.6900 mL	3.3800 mL
	10 mM		0.1690 mL	0.8450 mL	1.6900 mL

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

Biological Activity

Shortsummary

surface active agent and inhibitor of V-ATPase proton transport

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	In wild-type yeast cells
Preparation method:	Limited solubility. 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:	Yeast cells expressing pHluorin were grown overnight to mid-log phase (0.4–0.6 A ₆₀₀ /ml) and pre-incubated with 100 μM drug in 0.2% DMSO.

	Applications:	Treatment of yeast cells with thonzonium bromide significantly lowers the pH to (pH _{cyt} 6.22±0.02), 10 μM thonzonium bromide reduces cell growth, with the cells developing a mild vma phenotype at 37 °C. Moreover, thonzonium bromide completely prevents yeast growth at 50 and 100 μM concentrations.
In Vivo	Animal experiment	
	Applications:	

Product Citations

See more customer validations on www.apexbt.com.

References

1. Chan CY, Prudom C, Raines SM, et al. Inhibitors of V-ATPase proton transport reveal uncoupling functions of tether linking cytosolic and membrane domains of V0 subunit a (Vph1p). J Biol Chem, 2012, 287(13): 10236-10250.

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. 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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