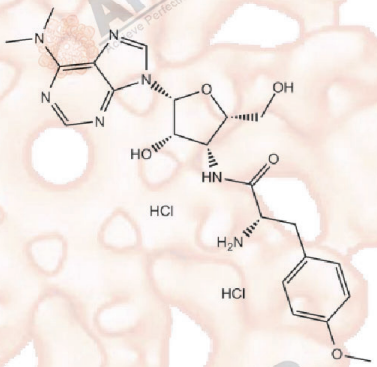
Product Data Sheet

Puromycin dihydrochloride

Cat. No.: B7587
CAS No.: 58-58-2
Formula: C22H29N7O5·2HCl
M.Wt: 544.43
Synonyms:
Target: DNA Damage/DNA Repair
Pathway: DNA Synthesis
Storage: Store at -20°C



Solvent & Solubility

In Vitro

⩾27.2 mg/mL in DMSO; ⩾3.27 mg/mL in EtOH with ultrasonic; ⩾99.4 mg/mL in H2O

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	1.8368 mL	9.1839 mL	18.3678 mL
5 mM	0.3674 mL	1.8368 mL	3.6736 mL
10 mM	0.1837 mL	0.9184 mL	1.8368 mL

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

Biological Activity

Shortsummary	allows selection for cells expressing the resistance gene puromycin N-acetyl-transferase (PAC) and successful Cas9-induced knock-in with puromycin resistance gene.
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	T. thermophila 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:	0 ~ 200 μg/mL; 0 ~ 72 hrs
	Applications:	Puromycin Dihydrochloride, at the dose of 200 μg/mL, killed all T. thermophila cells by 48 hrs. At later time points, there was no survivors.
In Vivo	**Animal experiment**	
	Animal models:	25-day- and 50-day- old mice
	Dosage form:	0.2 mg/g; i.p.
	Applications:	Puromycin Dihydrochloride, an autophagic inducer, elevated the level of free ribosomes. Up to 70% of cytoplasmic ribosomes were recovered in the free form, 30 to 60 mins after Puromycin Dihydrochloride treatment.
	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]. Masaaki Iwamoto, ChieMori, Yasushi Hiraoka, et al. Puromycin resistance gene as an effective selection marker for ciliate Tetrahymena. Gene, 2014, 534:249–255.

[2]. Réz G, Kiss A, Bucsek MJ, Kovács J. Attachment of ribosomes to endoplasmic membranes in mouse pancreas. Degranulation in vivo caused by the inducers of autophagocytosis neutral red, vinblastine, puromycin, and cadmium ions, and prevention by cycloheximide. Chem Biol Interact. 1976 Apr;13(1):77-87.

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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