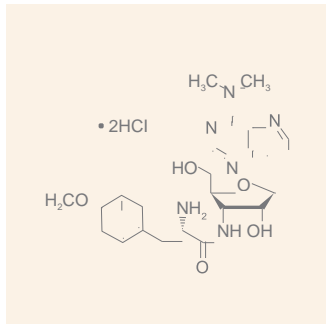


Puromycin Dihydrochloride

Molecular structure



Product Description

Puromycin dihydrochloride is isolated from *Streptomyces alboniger* as a broad-spectrum amino-nucleoside antibiotic. Puromycin dihydrochloride is active against Gram-positive bacteria and weakly active against Gram-negative bacteria. The mechanism of action involves premature release of nascent polypeptide chains by the addition of puromycin dihydrochloride to the growing peptide chain. Protein synthesis is inhibited in both prokaryotic and eukaryotic cells that do not express the puromycin-N-acetyltransferase (pac) gene encoding resistance. Puromycin dihydrochloride is as effective as Hygromycin B and G418, and selection can be achieved in 2 to 3 days. Stock solutions may be prepared by dissolving the antibiotic in deionized water. When filter-sterilized (0.22 micron filter), stock solution may be stored at 4°C for up to 1 year. The stock solution may also be divided into aliquots and stored frozen for greater stability. The effective killing concentration of the antibiotic will vary as to cell type, media, growth conditions, and density, as well as the cell's metabolic rate and position in the cell cycle. When using puromycin dihydrochloride in a new cell system, a full dose curve is suggested. Several points on that curve should be retested with each new lot of puromycin dihydrochloride.

Product Specification

Mode of Action:	Aminoacyl tRNA mimic, causing premature polypeptide chain termination
Spectrum:	Gram (+) bacteria Gram (-) bacilli aerobes and facultative anaerobes only; higher and lower eukaryotes
Conferred Resistance:	Puromycin-modifying enzymes
Molecular weight:	544.4

Formula:	C22H20N7O5 *2HCl
Appearance:	White to off-white powder
Working Concentration:	0.5 to 10 µg/mL
Storage and Stability:	Frozen - 25°C to -15°C Protect from light

Ordering information

Cat. No.	Description	Unit Size	Qty/Pk
61-385-RA	Puromycin Dihydrochloride, powder	100 mg	1

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Support

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