Specification

Puromycin dihydrochloride *BioChemica* A2856

Physical Description:	Solid
Product Code:	A2856
Product Name:	Puromycin dihydrochloride *BioChemica*
Specifications:	Assay (HPLC): min. 98 % IR-Spectrum: passes test Solubility (5 %; H_2O): clear, colorless
Hazard pictograms	
WGK:	1
Storage:	-20°C
Signal Word:	Attention
GHS Symbols:	GHS07
H Phrases:	H302
P Phrases:	P264 P270 P301+P312
Molecular Formula:	$C_{22}H_{29}N_7O_5 \cdot 2HCl$
M:	544.44 g/mol
CAS:	58-58-2
EINECS:	200-387-8
CS:	29419000

AppliChem GmbH
Ottoweg 4 • D-64291 Darmstadt • Phone +49 6151 9357 0 • Fax +49 6151 9357 11 • **info.de@itwreagents.com** • **www.itwreagents.com**
CEO Joan Roget • Commerzbank Darmstadt • Bank 508 800 50 • Account 0186989900 IBAN DE24 5088 0050 0186 9899 00 • Swiftcode DRESDEFF508 • Finanzamt Darmstadt 07 228 16476 • Register court Darmstadt HRB Nr. 7340

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Comment

Puromycin is an aminonucleoside antibiotic from *Streptomyces alboniger*. It is an analogon to aminoacyl-tRNA and inhibits the protein synthesis by termination of the peptidyl transfer at the ribosomes in prokaryotes and eukaryotes. The antibiotic inhibits the growth of gram positive bacteria and different animal cells. Fungi and gram negative bacterias are resistant, since puromycin cannot pass the cell wall. The discovery of the puromycin-N-acetyltransferase (PAC) in a Streptomyces-stem allowed to employ the antibiotic as a selection marker, comparable to neomycin. The working concentration is for mammalian cells depending on the cell line between 1 and 50 µg/ml.Stock solutions of puromycin (10 mg/ml) can be prepared in HEPES buffer and are stored at \+4°C or -20°C (improves stability) up to one year.

Bibliography

(1)Sambrook, J. & Russell, D.W. (2001) *Molecular Cloning*\: A Laboratory Manual, 3rd Edition Page 16.49 \+ 17.65. CSHL Press, Cold Spring Harbor, NY. (2)De La Luna, S. & Ortin, J. (1992) *Methods Enzymol.* **216**, 376-385*pac*-Gen as Efficient Dominant Marker and Reporter Gene in Mammalian Cells.

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