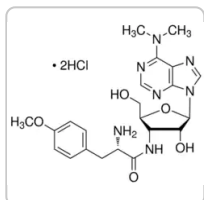


Saisir le nom du produit, le numéro de lot, etc.



Toutes les
photos (5)

Documents



FDS



COO/COA



Fiche des
caractéristiques

Plus de
documents »

P8833 ► Sigma-Aldrich.

Puromycin dihydrochloride from *Streptomyces alboniger*



★★★★★ (0)

powder, BioReagent, suitable for cell culture

Synonyme(s):

3'-[α-Amino-*p*-methoxyhydrocinnamido]-3'-deoxy-N,N-dimethyladenosine dihydrochloride

Empirical Formula (Hill Notation):

C₂₂H₂₉N₇O₅ · 2HCl

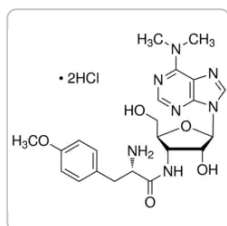
Numéro CAS:	58-58-2	Poids moléculaire:	544.43
Beilstein:	3853613	Numéro EC:	200-387-8
Numéro MDL:	MFCD00012691	ID de substance PubChem:	24898984
NACRES:	NA.76		

Référence	Conditionnement	Disponibilité	Prix	Quantité
P8833-10MG	10 MG	Disponible pour expédition le 07 octobre 2022 Détails...	91,30 €	– + i
P8833-25MG	25 MG	Disponible pour expédition le 07 octobre 2022 Détails...	142,00 €	– + i

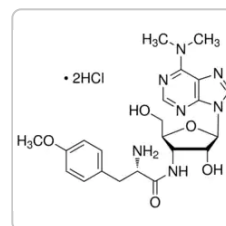
Référence	Conditionnement	Disponibilité	Prix	Quantité
P8833-100MG	100 MG	✓ Only 2 left in stock (more on the way) Détails...	428,00 €	- + i

[Demander une commande en gros](#)[Ajouter au panier](#)

PRODUITS RECOMMANDÉS



Sigma-Aldrich

P9620**Puromycin dihydrochloride**Ready Made Solution, from *Streptomyces alboniger*,
10 mg/mL in H₂O[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

P7255**Puromycin dihydrochloride from *Streptomyces alboniger***

≥98% (HPLC), powder

[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Source biologique	<i>Streptomyces alboniger</i>
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Niveau de qualité	300
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Gamme de produits	BioReagent
-------------------	------------

Essai/Dosage	≥98% (HPLC)
Forme	powder
Poids mol.	544.43 g/mol
Conditionnement	pkg of 10 mg pkg of 100 mg pkg of 25 mg
Score du produit alternatif plus écologique	old score: 88 new score: 79 Find out more about DOZN™ Scoring
Caractéristiques du produit alternatif plus écologique	Atom Economy Design for Energy Efficiency Use of Renewable Feedstocks Design for Degradation Learn more about the Principles of Green Chemistry .
technique(s)	cell culture mammalian: suitable
Couleur	yellow-white
Solubilité	H ₂ O: soluble 50 mg/mL, clear, colorless to faintly yellow
N° d'accèsion UniProt	P13249
Spectre d'activité de l'antibiotique	Gram-positive bacteria neoplastics parasites

application(s)	agriculture
Autre catégorie plus écologique	Re-engineered
Mode d'action	protein synthesis interferes
Temp. de stockage	-20°C
SMILES string	<chem>Cl.CI.COc1ccc(C[C@H](N)C(=O)N[C@H]2[C@@H](O)[C@@H](O[C@@H]2CO)n3cnc4c(ncnc34)N(C)C)cc1</chem>
InChI	1S/C22H29N7O5.2ClH/c1-28(2)19-17-20(25-10-24-19)29(11-26-17)22-18(31)16(15(9-30)34-22)27-21(32)14(23)8-12-4-6-13(33-3)7-5-12;;/h4-7,10-11,14-16,18,22,30-31H,8-9,23H2,1-3H3,(H,27,32);2*1H/t14-,15+,16+,18+,22+;;/m0../s1
InChI key	MKSVFGKWZLUTTO-FZFAUISWSA-N

Vous recherchez des produits similaires ? Visitez [Guide de comparaison des produits](#)

Catégories apparentées

[Antibiotics](#)

[Greener Alternative Products](#)

DESCRIPTION

Description générale

Chemical structure: peptidyl nucleoside

Puromycin is a broad spectrum antibiotic produced by *Streptomyces alboniger*. It is an analog of the 3' end of aminoacyl-tRNA. It is an inhibitor of peptidyl transferase and is active in both prokaryotes and eukaryotes.

Application

Puromycin dihydrochloride from *Streptomyces alboniger* has been used:

- in the preparation of puromycin stock solution for puromycin sensitivity assay.
- to select lentivirus-infected cells containing puromycin resistant selection marker.

Puromycin dihydrochloride is a part of the amino-nucleoside family of antibiotics and is derived from *Streptomyces alboniger*. It is a broad spectrum antibiotic with antitumor activity, as an inhibitor of protein synthesis and has been used to study transcription regulatory mechanisms that control the sequential and coordinate expression of genes during cell differentiation. The recommended working concentration in eukaryotic cell culture is 1-10 µg/mL.

Used as a selective agent for cells that contain the resistance gene puromycin N-acetyl-transferase (PAC). Recommended for use at a range of 1-10 µg/ml. Sterilize stock solution by filtration using 0.22 µm filter then store in aliquots at -20 °C.

Conditionnement

10, 25, 100 mg in glass bottle

Actions biochimiques/physiologiques

Puromycin associates in a non-specific manner with growing polypeptide chains, and thus, leads to premature termination of translation. It inhibits protein synthesis in two ways. It associates with the donor substrate, peptidyl-tRNA, in the P site and thus, functions as an acceptor substrate. Second, it competes with aminoacyl tRNA to bind with the A' site within the peptidyl transferase center.

Mode of Action: Puromycin inhibits protein synthesis by causing premature chain termination acting as an analog of the 3'-terminal end of the aminoacyl-tRNA.

Mode of Resistance: Puromycin acetyltransferase is an effective resistance gene.

Antimicrobial Spectrum: This product is active against gram-positive microorganisms, less active against acid-fast bacilli and more weakly active against gram-negative microorganisms. Puromycin can prevent growth of bacteria, protozoa, algae and mammalian cells and acts quickly, killing 99% of cells within 2 days.

Attention

As supplied, this product remains active for four years when stored at -20°C.

Notes préparatoires

This product is soluble in water at 50 mg/mL. A stock solution should be prepared by filtration using a 0.22 µm filter and then stored in aliquots at -20°C. This product is also soluble in methanol at 10 mg/mL.

Autres remarques

Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place

INFORMATIONS SUR LA SÉCURITÉ

Pictograms



GHS07

Mention d'avertissement

Warning

Mentions de danger

H302

Conseils de prudence

P301 + P312 + P330

Classification des risques

Acute Tox. 4 Oral

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Point d'éclair C

Équipement de protection

Not applicable

individuelle

dust mask type N95 (US),
Eyeshields, Gloves

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

e.g. 023J5431

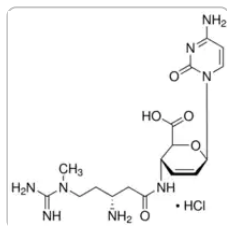
Comment saisir un numéro de lot (COO)

Rechercher

Fiches Techniques

[Data Sheet - P8833](#)[Plus De Documents](#)[Antibiotics and Antimycotics](#)[Spectra - ATR-IR](#)[Spectra for FT-IR Raman](#)[Structure Search](#)[THE DOZN SCALE Puromycin dihydrochloride from Streptomyces alboniger \(P8833\)](#)[FDS](#)

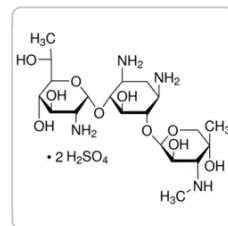
LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

SBR00022**Blasticidin S Ready Made Solution**

10 mg/mL (20 mM HEPES), 0.22 µm filtered

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

A1720**G 418 disulfate salt**

powder, BioReagent, suitable for cell culture

[Consulter le prix et la disponibilité](#)

QUESTIONS FRÉQUEMMENT POSÉES (FAQ)

Which document(s) contains shelf-life or expiration date information for a given product?

If available for a given product, the recommended re-test date or the expiration date can be found on the Certificate of Analysis.

How do I get lot-specific information or a Certificate of Analysis?

The lot specific COA document can be found by entering the lot number above under the "Documents" section.

How do I find price and availability?

There are several ways to find pricing and availability for our products. Once you log onto our website, you will find the price and availability displayed on the product detail page. You can contact any of our Customer Sales and Service offices to receive a quote. USA customers: 1-800-325-3010 or view [local office numbers](#).

What is the Department of Transportation shipping information for this product?

Transportation information can be found in Section 14 of the product's (M)SDS. To access the shipping information for this material, use the link on the product detail page for the product.

What are the approximate concentrations of Product P8833, Puromycin dihydrochloride, suitable for HeLa human uterus, B16 mouse melanoma and PC1.0 hamster adenocarcinoma cells?

HeLa human uterus: 3 µg/mL; B16 mouse melanoma: 1-3 µg/mL; PC1.0 hamster adenocarcinoma: 10 µg/mL.

What are the approximate concentrations of Product P8833, Puromycin dihydrochloride, suitable for HEK293, A431 and Jurkat cells?

HEK293: 2-3 µg/mL; A431: 1 µg/mL; Jurkat: 4 µg/mL.

My question is not addressed here, how can I contact Technical Service for assistance?

Ask a Scientist [here](#).

ARTICLES REVUS PAR DES PAIRS

[Anucleate platelets generate progeny.](#)

Hansjörg Schwertz et al.
Blood, 115(18), 3801-3809 (2010-01-21)

Platelets are classified as terminally differentiated cells that are incapable of cellular division. However, we observe that anucleate human platelets, either maintained in suspension culture or captured in microdrops, give rise to new cell bodies packed with respiring mitochondria and

Heterocyclic analogs of nucleosides: synthesis and biological evaluation of novel analogs of puromycin.

Hultin P G and Walter A S

Canadian Journal of Chemistry, 72(9), 1978-1989 (1994)

Specific bonding of puromycin to full-length protein at the C-terminus.

E Miyamoto-Sato et al.

Nucleic acids research, 28(5), 1176-1182 (2000-02-10)

Puromycin, an analog of the 3' end of aminoacyl-tRNA, causes premature termination of translation by being linked non-specifically to growing polypeptide chains. Here we report the interesting phenomenon that puromycin acting as a non-inhibitor at very low concentration (e.g. 0.04

A novel method for the production of transgenic cloned pigs: electroporation-mediated gene transfer to non-cultured cells and subsequent selection with puromycin.

Satoshi Watanabe et al.

Biology of reproduction, 72(2), 309-315 (2004-09-24)

Puromycin N-acetyl transferase gene (pac), of which the gene product catalyzes antibiotic puromycin (an effective inhibitor of protein synthesis), has been widely used as a dominant selection marker in embryonic stem (ES) cell-mediated transgenesis. The present study is the first

Improvement of a puromycin-linker to extend the selection target varieties in cDNA display method.

Shingo Ueno et al.

Journal of biotechnology, 162(2-3), 299-302 (2012-09-25)

cDNA display using a puromycin-linker to covalently bridge a protein and its coding cDNA is a stable and efficient in vitro protein selection method. The optimal design of the often-used puromycin-linker is vital for effective selection. In this report, an

Afficher tous les articles scientifiques apparentés

PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Inhibition of Protein Synthesis by Antibiotics

Protein synthesis is a complex, multi-step process involving many enzymes as well as conformational alignment. However, the majority of antibiotics that block bacterial protein synthesis interfere with the processes at the 30S subunit or 50S subunit of the 70S bacterial ribosome.

Antibiotic Kill Curve

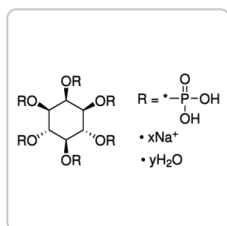
Antibiotic kill curve is a dose response experiment in which mammalian cells are subjected to increasing amounts of selection antibiotic

Protocoles

Induced Pluripotent Stem Cell Reprogramming Protocols

Stem cell reprogramming protocols to generate human induced pluripotent stem cells (iPSCs) including viral and non-viral RNA based methods.

PRODUITS CONSULTÉS RÉCEMMENT



Sigma-Aldrich

P8810

Phytic acid sodium salt hydrate
from rice

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

P8811

Protease from *Streptomyces griseus*

powder, BioReagent, suitable for mouse embryo cell culture, ≥3.5 units/mg solid

[Consulter le prix et la disponibilité](#)

Évaluations



Soyez le premier à donner votre avis sur ce produit

Questions

Soyez le premier à poser une question

SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

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