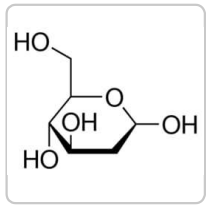


Toutes les photos (5)

Documents

FDS

COO/COA

Fiche des caractéristiques

Plus de documents »

D6134 ▶ Sigma-Aldrich®

2-Deoxy-D-glucose

★★★★★ (0)

≥99% (GC), crystalline

Synonyme(s):
2-Deoxy-D-arabinohexose

Empirical Formula (Hill Notation):
$C_6H_{12}O_5$

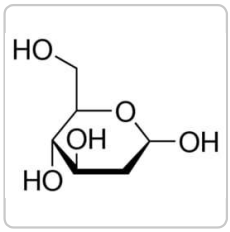
Numéro CAS:	154-17-6	**Poids moléculaire:**	164.16
Beilstein:	1723331	**Numéro EC:**	205-823-0
Numéro MDL:	MFCD00151328	**ID de substance PubChem:**	24894000
NACRES:	NA.25		

Référence	Conditionnement	Disponibilité		Prix	Quantité
D6134-250MG	250 MG	Only 3 left in stock (more on the way)	Détails...	51,00 €	− +
D6134-1G	1 G	Disponible pour expédition le 06 octobre 2022	Détails...	118,00 €	− +
D6134-5G	5 G	Disponible pour expédition le 06 octobre 2022	Détails...	399,00 €	− +
D6134-25G	25 G	Only 6 left in stock (more on the way)	Détails...	1 610,00 €	− +

Demander une commande en gros

Ajouter au panier

PRODUITS RECOMMANDÉS



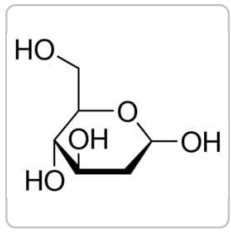
Sigma-Aldrich

D8375

2-Deoxy-D-glucose

≥98% (GC), crystalline

Consulter le prix et la disponibilité



Sigma-Aldrich

D3179

2-Deoxy-D-glucose

BioXtra, ≥98%

Consulter le prix et la disponibilité

PROPRIÉTÉS

Source biologique	synthetic (organic)
Niveau de qualité	200
Essai/Dosage	≥99% (GC)
Forme	crystalline
technique(s)	gas chromatography (GC): suitable

Couleur	white
Pf	146-147 °C (lit.)
Solubilité	H_2O: soluble 330 mg/mL, clear, colorless
Temp. de stockage	2-8°C
SMILES string	OC[C@@H](O)[C@@H](O)[C@H](O)CC=O
InChI	1S/C6H12O5/c7-2-1-4(9)6(11)5(10)3-8/h2,4-6,8-11H,1,3H2/t4-,5-,6+/m1/s1
InChI key	VRYALKFFQXWPIH-PBXRRBTRSA-N

Vous recherchez des produits similaires ? Visit **Guide de comparaison des produits**

DESCRIPTION

Application

2-Deoxy-D-glucose (2-DG) is used in glucoprivic feeding research to invoke and study the processes of counter-regulatory response (CRR). 2-Deoxy-D-glucose is used in the development of anti-cancer strategies that involve radio- and chemosensitization and oxidative stress.

Conditionnement

250 mg in poly bottle

1, 5, 25 g in poly bottle

Actions biochimiques/physiologiques

2-Deoxy-D-Glucose (2-Deoxyglucose) is a glucose analog that inhibits glycolysis via its actions on hexokinase, the rate limiting step of glycolysis. It is phosphorylated by hexokinase to 2-DG-P which can not be further metabolized by phosphoglucose isomerase. This leads to the accumulation of 2-DG-P in the cell and the depletion in cellular ATP. *In vitro*, 2-Deoxyglucose has been shown to induce autophagy, increase ROS production, and activate AMPK.

Notes préparatoires

A further purification of the Grade II material by recrystallization.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage
13 - Non Combustible Solids

WGK
WGK 3

Flash Point(F)
Not applicable

Point d'éclair C
Not applicable

Équipement de protection individuelle
Eyeshields, Gloves, type N95 (US)

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

Plus De Documents

FT-NMR Spectra

Spectra - ATR-IR

Spectra for FT-IR Raman

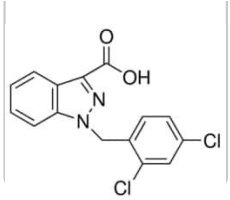
Structure Search

FDS

LES CLIENTS ONT ÉGALEMENT CONSULTÉ

Sigma-Aldrich

Sigma-Aldrich

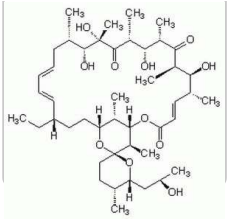


L4900

Lonidamine

mitochondrial hexokinase inhibitor

Consulter le prix et la disponibilité



495455

Oligomycin - CAS 1404-19-9 - Calbiochem

A mixture of A, B, and C isomers.

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 can I dissolve 2-Deoxy-D-glucose, Product D6134?

The product is soluble in water at 330 mg/mL. It may also be soluble in DMSO.

Can solutions of 2-Deoxy-D-glucose, Product D6134, be stored?

Sigma-Aldrich has no information on the solution stability of this product. If information can't be found in the literature, it is best to prepare fresh solutions.

What is the shelf life of 2-Deoxy-D-glucose, Product D6134?

There is no recommended retest date given to released lots for this product. The product is guaranteed to be of good quality for one year from the time you receive it; this guarantee applies only to unopened bottles which have been stored at room temperature.

What are the differences between products D6134 and D8375 which are both 2-deoxy-D-glucose?

Product D6134 is a further purification by crystallization of D8375.

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.

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

Ask a Scientist **here**.

ARTICLES REVUS PAR DES PAIRS

Diffusion and retention are major determinants of protein targeting to the inner nuclear membrane.

Rosemarie Ungricht et al.
The Journal of cell biology, 209(5), 687-703 (2015-06-10)

Newly synthesized membrane proteins are constantly sorted from the endoplasmic reticulum (ER) to various membranous compartments. How proteins specifically enrich at the inner nuclear membrane (INM) is not well understood. We have established a visual in vitro assay to measure

Mass spectrometry-based metabolomics of single yeast cells.

Alfredo J Ibáñez et al.
Proceedings of the National Academy of Sciences of the United States of America, 110(22), 8790-8794 (2013-05-15)

Single-cell level measurements are necessary to characterize the intrinsic biological variability in a population of cells. In this study, we demonstrate that, with the microarrays for mass spectrometry platform, we are able to observe this variability. We monitor environmentally (2-deoxy-D-glucose)

Pro-Survival Lipid Sphingosine-1-Phosphate Metabolically Programs T Cells to Limit Anti-tumor Activity.

Paramita Chakraborty et al.
Cell reports, 28(7), 1879-1893 (2019-08-15)

Sphingosine 1-phosphate (S1P), a bioactive lysophospholipid generated by sphingosine kinase 1 (SphK1), regulates lymphocyte egress into circulation via S1P receptor 1 (S1PR1) signaling, and it controls the differentiation of regulatory T cells (Tregs) and T helper-17 cells. However, the mechanisms by

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Central glucagon-like peptide 1 receptor-induced anorexia requires glucose metabolism-mediated suppression of AMPK and is impaired by central fructose.

Melissa A Burmeister et al.
American journal of physiology. Endocrinology and metabolism, 304(7), E677-E685 (2013-01-24)

Glucagon-like peptide-1 (GLP-1) suppresses food intake via activation of a central (i.e., brain) GLP-1 receptor (GLP-1R). Central AMP-activated protein kinase (AMPK) is a nutrient-sensitive regulator of food intake that is inhibited by anorectic signals. The anorectic effect elicited by hindbrain

---

Defective glucose metabolism in polycystic kidney disease identifies a new therapeutic strategy.

Isaline Rowe et al.
Nature medicine, 19(4), 488-493 (2013-03-26)

Autosomal dominant polycystic kidney disease (ADPKD) is a common genetic disorder characterized by bilateral renal cyst formation. Recent identification of signaling cascades deregulated in ADPKD has led to the initiation of several clinical trials, but an approved therapy is still

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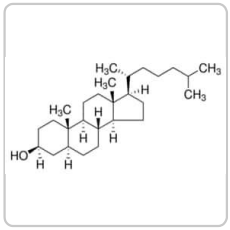
PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Autophagy in Cancer Promotes Therapeutic Resistance

We presents an article on Autophagy in Cancer Promotes Therapeutic Resistance

PRODUITS CONSULTÉS RÉCEMMENT



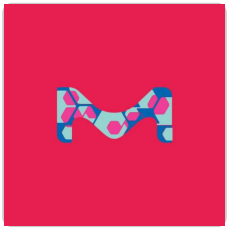
Sigma-Aldrich

D6128

5α-Cholestan-3β-ol

≥95%

Consulter le prix et la disponibilité



Sigma-Aldrich

D6001

Dextran sulfate sodium salt from *Leuconostoc* spp.

average mol wt >500,000 (dextran starting material), contains 0.5-2.0% phosphate buffer, pH 6-8

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..

Contacter notre Service technique

Le contenu de cette page vous a-t-il été utile ?*

Que pouvons-nous faire pour améliorer cette page spécifique de notre site Internet ?

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