

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.


[GET YOURS HERE](#)




Toutes les
photos (2)

P4234 ▶ **Sigma-Aldrich.**

Pyranose Oxidase from *Coriolus* sp.

★★★★★ (0)

recombinant, expressed in *E. coli*, ≥2.7 units/mg solid

Synonyme(s):

Pyranose: Oxygen 2-Oxidoreductase

Documents

↓ **FDS**

🔍 **COO/COA**

📄 **Fiche des
caractéristiques**

Plus de
documents »

Numéro CAS: **37250-80-9**

Numéro MDL: **MFCD03458318**

Numéro de classification
(Commission des enzymes):

1.1.3.10 (BRENDA, IUBMB)

NACRES:

NA.54

Référence	Conditionnement	Disponibilité	Prix	Quantité	
P4234-250UN	250 UNITS	✓ Date d'expédition estimée le 16 décembre 2022	286,00 €	- +	i
P4234-1KU	1000 UNITS	✓ Date d'expédition estimée le 16 décembre 2022	849,00 €	- +	i

Demander une commande en gros

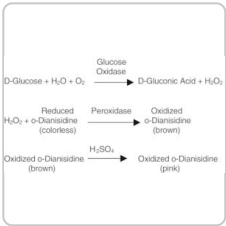
Ajouter au panier

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



Sigma-Aldrich

G2133

Glucose Oxidase from *Aspergillus niger*

Type VII, lyophilized powder, ≥100,000 units/g solid (without added oxygen)



Sigma-Aldrich

C1345

Catalase from bovine liver

powder, suitable for cell culture, 2,000-5,000 units/mg protein



[Consulter le prix et la disponibilité](#)

[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Recombinant	expressed in <i>E. coli</i>
Niveau de qualité	200
Forme	powder
specific activity	≥2.7 units/mg solid
Expédié(e)s dans	wet ice
Temp. de stockage	-20°C

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



Description générale

Pyranose oxidase (P2O), a homotetrameric protein consists of a covalently bound flavin adenine dinucleotide (FAD). It is seen mostly among wood-degrading basidiomycetes.

Application

Pyranose Oxidase from *Coriolus sp.* has been used in the enzymatic oxidation of D-glucose (DG). It has also been used as a component in oxygen scavenging system (OSS) to increase the lifetime of the fluorophores.

Conditionnement

250, 1000 units in poly bottle

Actions biochimiques/physiologiques

Pyranose oxidase (P2O) can be used in clinical chemistry to determine 1,5-anhydro-d-glucitol marker, used for glycemic control in diabetes patients.

Pyranose oxidase (P2O) catalyzes the oxidation of aldopyranoses at position C-2 to yield the corresponding 2-ketoaldoses. The *in vivo* substrates of P2O are thought to be D-glucose, D-galactose, and D-xylose. They are oxidized to 2-keto-D-glucose (D-arabino-hexos-2-ulose, 2-dehydro-D-glucose), 2-keto-D-galactose (D-lyxo-hexos-2-ulose, 2-dehydro-D-galactose), and 2-keto-D-xylose (D-threopentos-2-ulose, 2-dehydro-D-xylose), respectively. Pyranose oxidase has significant activity with carbohydrates such as, L-sorbose, D-glucono-1,5-lactone, and D-allose. When pyranose oxidase catalyzes the oxidation of aldopyranoses, electrons are transferred to molecular oxygen which results in the formation of hydrogen peroxide.

Définition de l'unité

One unit produces 1.0 μmol of hydrogen peroxide per minute at 37 °C, pH 7.0.

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.

[GET YOURS HERE](#)

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

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

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



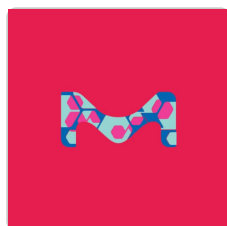
Rechercher

Plus De Documents

Enzyme Explorer

FDS

LES CLIENTS ONT ÉGALEMENT CONSULTÉ



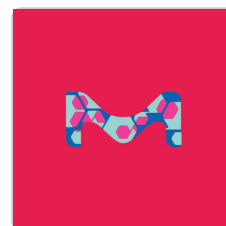
Sigma-Aldrich

C3515

Catalase from *Aspergillus niger*

ammonium sulfate suspension, $\geq 4,000$ units/mg protein

Consulter le prix et la disponibilité



Sigma-Aldrich

SAE0059

OxyFluor™

Consulter le prix et la disponibilité

ARTICLES REVUS PAR DES PAIRS

Single nucleus RNA-sequencing defines unexpected diversity of cholinergic neuron types in the adult mouse spinal cord.

Mor R Alkaslasi et al.

Nature communications, 12(1), 2471-2471 (2021-05-02)

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



Regioselective control of p-d-glucose oxidation by pyranose 2-oxidase is intimately coupled to conformational degeneracy.

Tien-Chye Tan et al.

Journal of molecular biology, 409(4), 588-600 (2011-04-26)

Trametes multicolor pyranose 2-oxidase (P2O) is a flavoprotein oxidase that oxidizes d-glucose at C2 to 2-keto-d-glucose by a highly regioselective mechanism. In this work, fluorinated sugar substrates were used as mechanistic probes to investigate the basis of regioselectivity in P2O.

Purification and characterization of pyranose oxidase from the white rot fungus Trametes multicolor.

C Leitner et al.

Applied and environmental microbiology, 67(8), 3636-3644 (2001-07-27)

We purified an intracellular pyranose oxidase from mycelial extracts of the white rot fungus Trametes multicolor by using ammonium sulfate fractionation, hydrophobic interaction, ion-exchange chromatography, and gel filtration. The native enzyme has a molecular mass of 270 kDa as determined

Biocatalytic cascade oxidation using laccase for pyranose 2-oxidase regeneration.

Wouter Van Hecke et al.

Bioresource technology, 100(23), 5566-5573 (2009-07-15)

The interactions between two oxidoreductases coupled by an artificial redox mediator have been described quantitatively to increase both stability and productivity. In this cascade oxidation, pyranose 2-oxidase oxidizes several aldoses at the C-2 position to 2-ketoaldoses. A redox mediator is

Importance of the gating segment in the substrate-recognition loop of pyranose 2-oxidase.

Oliver Spadiut et al.

The FEBS journal, 277(13), 2892-2909 (2010-06-10)

Pyranose 2-oxidase from Trametes multicolor is a 270 kDa homotetrameric enzyme that participates in lignocellulose degradation by wood-rotting fungi and oxidizes a variety of aldopyranoses present in lignocellulose to 2-ketoaldoses. The active site in pyranose 2-oxidase is gated by a

Brighten up your lab coat!

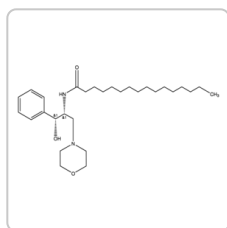
Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



PRODUITS CONSULTÉS RÉCEMMENT



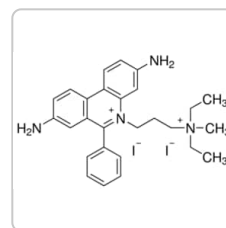
Sigma-Aldrich

P4194

DL-*threo*-1-Phenyl-2-palmitoylamino-3-morpholino-1-propanol

98%

Consulter le prix et la disponibilité



Sigma-Aldrich

P4170

Propidium iodide

≥94.0% (HPLC)

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

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



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 ?

Envoyer

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE

