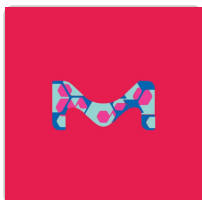


Saisir le nom du produit, le numéro de lot, etc.

[Toutes les photos](#) (1)

Documents

[FDS](#)[COO/COA](#)[Fiche des caractéristiques](#)[Plus de documents](#) »**P7768** ▶ **Sigma-Aldrich.**

Pyruvate Kinase from rabbit muscle

★★★★★ (0)

Type VII, buffered aqueous glycerol solution, 350-600 units/mg protein

Synonyme(s):

ATP:pyruvate 2-O-phosphotransferase, PK

Numéro CAS: **9001-59-6**Numéro de classification
(Commission des enzymes):**2.7.1.40 (BRENDA, IUBMB)**Numéro MDL: **MFCD00081946**

eCl@ss:

32160410

NACRES: NA.54

Référence	Conditionnement	Disponibilité	Prix	Quantité
P7768-1KU	1000 UNITS	✓ Date d'expédition estimée le 24 novembre 2022	39,90 €	- +
P7768-2.5KU	2500 UNITS	✓ Only 3 left in stock (more on the way) Détails...	66,20 €	- +
P7768-5KU	5000 UNITS	✓ Only 3 left in stock (more on the way) Détails...	115,00 €	- +

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PRODUITS RECOMMANDÉS



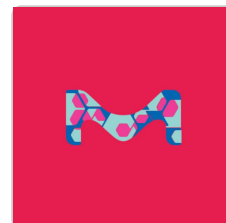
Sigma-Aldrich

P9136

Pyruvate Kinase from rabbit muscle

Type III, lyophilized powder, 350-600 units/mg protein

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

P1506

Pyruvate Kinase from rabbit muscle

Type II, ammonium sulfate suspension, 350-600 units/mg protein

[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Type	Type VII
Niveau de qualité	300
Forme	buffered aqueous glycerol solution
specific activity	350-600 units/mg protein
Poids mol.	237 kDa
Concentration	2.0-20.0 mg/mL
Activité étrangère	lactic dehydrogenase and creatine phosphokinase $\leq 0.01\%$ phosphoglucumutase and myokinase $\leq 0.05\%$

Temp. de stockage

2-8°C

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

DESCRIPTION

Application

Pyruvate kinase from Sigma has been used in the preparation of cell free extract from BL21 CP strain of *E. coli* culture for highly productive cell-free protein expression. The enzyme has been used to assay the pyruvate kinase activity by incubating with eluted DAPk (Death-associated protein kinase), a serine/threonine kinase that binds and activates pyruvate kinase.

Pyruvate kinase is an enzyme involved in glycolysis and is involved in gluconeogenesis. Product P7768 is from rabbit muscle and is provided in a buffered aqueous glycerol solution and has been used in PGM enzyme assays to determine phosphoglycerate mutase activity. Pyruvate kinase is also used to study pyruvate kinase (PK) deficiency.

Actions biochimiques/physiologiques

Molecular Weight: 237 kDa and exists as a tetramer of four equal subunits of molecular weight 57 kDa.

Isoelectric Point: 7.6

Optimal pH: ~7.5

Optimal Temperature: 25°C

EA₂₈₀ = 0.54 for 1 mg(p)/ml, 1 cm path

Reported K_M values are ATP (0.86 mM), pyruvate (10 mM), ADP (0.3 mM), and PEP (0.07 mM) in Tris buffer at pH 7.4 and 30 °C.

Pyruvate kinase is highly specific for phosphoenolpyruvate, but can utilize other dinucleotide triphosphates as substrates in place of ATP including GTP, ITP, dATP, UTP, and CTP.

Pyruvate kinase catalyzes the transfer of a phosphate group from phosphoenolpyruvate (PEP) to ADP. This transfer yields one molecule of pyruvate and one molecule of ATP. Molecular Weight: 237 kDa and exists as a tetramer of four equal subunits of

molecular weight 57 kDa.

Isoelectric Point: 7.6

Optimal pH: ~7.5

Définition de l'unité

One unit will convert 1.0 μ mole of phospho(enol)pyruvate to pyruvate per min at pH 7.6 at 37 °C.

Forme physique

Solution in 50% glycerol containing 0.01 M phosphate, pH 7.0

Remarque sur l'analyse

Protein determined by biuret.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

12 - Non Combustible Liquids

WGK

WGK 2

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

Équipement de protection individuelle

Eyeshields, Gloves, multi-purpose combination respirator cartridge (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)

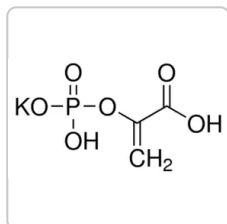
Rechercher

Plus De Documents

[Enzyme Explorer](#)

[FDS](#)

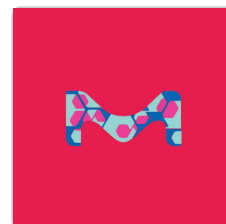
LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Roche

10108294001**Phosphoenol-pyruvate**

97% (PEP-K), pkg of 1 g

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

M3003**Myokinase from rabbit muscle**

ammonium sulfate suspension, 1,500-3,000 units/mg protein (biuret)

[Consulter le prix et la disponibilité](#)

ARTICLES REVUS PAR DES PAIRS

Preparation and testing of E. coli S30 in vitro transcription translation extracts.

James F Zawada*Methods in molecular biology (Clifton, N.J.), 805, 31-41 (2011-11-19)*

Crude cell-free extracts are useful tools for investigating biochemical phenomena and exploiting complex enzymatic processes such as protein synthesis. Extracts derived from E. coli have been used for over 50 years to study the mechanism of protein synthesis. In addition

Cofactor-independent phosphoglycerate mutase has an essential role in Caenorhabditis elegans and is conserved in parasitic nematodes.

Yinhua Zhang et al.*The Journal of biological chemistry, 279(35), 37185-37190 (2004-07-06)*

Phosphoglycerate mutases catalyze the interconversion of 2- and 3-phosphoglycerate in the glycolytic and gluconeogenic pathways. They exist in two unrelated forms that are either cofactor (2,3-diphosphoglycerate)-dependent or cofactor-independent. The two enzymes have no similarity in amino acid sequence, tertiary structure

Quantitative real-time analysis of the efflux by the MacAB-TolC tripartite efflux pump clarifies the role of ATP hydrolysis within mechanotransmission mechanism.

Hager Souabni et al.*Communications biology*, 4(1), 493-493 (2021-04-24)

Tripartite efflux pumps built around ATP-binding cassette (ABC) transporters are membrane protein machineries that perform vectorial export of a large variety of drugs and virulence factors from Gram negative bacteria, using ATP-hydrolysis as energy source. Determining the number of ATP

Studies on pyruvate kinase (PK) deficiency. II. Electrophoretic, kinetic and immunological studies on pyruvate kinase of erythrocytes and other tissues.

K Imamura et al.*Journal of biochemistry*, 74(6), 1165-1175 (1973-12-01)

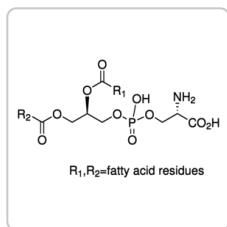
Preparation of Escherichia coli cell extract for highly productive cell-free protein expression.

Takanori Kigawa et al.*Journal of structural and functional genomics*, 5(1-2), 63-68 (2004-07-21)

As structural genomics and proteomics research has become popular, the importance of cell-free protein synthesis systems has been realized for high-throughput expression. Our group has established a high-throughput pipeline for protein sample preparation for structural genomics and proteomics by using

[Afficher tous les articles scientifiques apparentés](#)

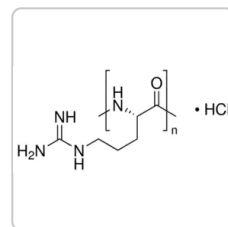
PRODUITS CONSULTÉS RÉCEMMENT



Sigma-Aldrich

P7769

1,2-Diacyl-*sn*-glycero-3-phospho-L-serine
≥97% (TLC), from bovine brain, amorphous powder



Sigma-Aldrich

P7762

Poly-L-arginine hydrochloride
mol wt 15,000-70,000

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Évaluations



Soyez le premier à donner votre avis sur ce produit

Questions

Soyez le premier à poser une question

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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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