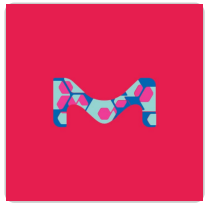

All Photos (1)

Documents

SDS

COO/COA

Specification Sheet

More Documents

A8811 ▶ Sigma-Aldrich.

Aldolase from rabbit muscle

(0)

ammonium sulfate suspension, 10-20 units/mg protein

Synonym(s):
D-Fructose-1,6-bisphosphate-D-glyceraldehyde-3-phosphate-lyase, Fructose-diphosphate Aldolase

CAS Number: 9024-52-6

Enzyme Commission number: 4.1.2.13 (BRENDA, IUBMB)

MDL number: MFCD00130453

NACRES: NA.54

SKU	Pack Size	Availability	Price	Quantity
A8811-100UN	100 UNITS	Only 4 left in stock (more on the way) Details...	€52.90	− +
A8811-200UN	200 UNITS	Estimated to ship on December 05, 2022	€83.30	− +
A8811-1KU	1000 UNITS	Only 1 left in stock (more on the way) Details...	€286.00	− +
A8811-5KU	5000 UNITS	Estimated to ship on November 01, 2022	€1,140.00	− +

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RECOMMENDED PRODUCTS

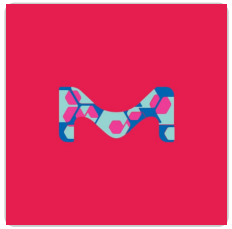
Sigma-Aldrich

A2714

Aldolase from rabbit muscle

lyophilized powder, ≥8.0 units/mg protein

View Price and Availability



Sigma-Aldrich

G6751

α-Glycerophosphate Dehydrogenase from rabbit muscle

Type I, ammonium sulfate suspension, 100-300 units/mg protein

View Price and Availability

PROPERTIES

biological source	rabbit muscle
Quality Level	**200**
form	ammonium sulfate suspension
specific activity	10-20 units/mg protein
foreign activity	glyceraldehyde-3-phosphate dehydrogenase ≤0.03% lactic dehydrogenase ≤0.03% phosphoglucose isomerase ≤0.6%

	pyruvate kinase ≤0.1% triosephosphate isomerase ≤0.05%
storage temp.	2-8°C

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DESCRIPTION

General description

Aldolase exists as three isoforms in rabbit, which includes type A from muscle, type B from liver and brain associated type C. Aldolases correspond to a molecular weight of 158 kDa and exists as tetramer.

Application

Aldolase from rabbit muscle has been used:

- in standard 1-phosphofructokinase from rabbit muscle (RPFK-1) assay
- as a standard in the characterization of metabolic enzymes from glaucomatous tissues
- in fructose 2,6-bisphosphate assay of human cell lines

Aldolase is used to convert fructose 1,6-diphosphate to dihydroxyacetone phosphate and glyceraldehyde 3-phosphate. Aldolase, from rabbit muscle has been used for stereospecific deprotonation at DHAP C3 .

Packaging

100, 200, 1000 units in poly bottle

5000 units in glass bottle

Biochem/physiol Actions

Aldolase interaction with Wiskott-Aldrich syndrome protein (WASP) may modulate actin dynamics. It reverses the inhibition elicited by ascorbate on Muscle-type LDH (LDH-m4).

Aldolase is involved in gluconeogenesis, the Calvin cycle and glycolysis. Aldolase, from rabbit muscle, is a class I aldolase which forms covalent Schiff base intermediates. The active site of aldolase is in the center of the α/β ^{8} barrel fold .

Unit Definition

One unit will convert 1.0 µmole of fructose 1,6-diphosphate to dihydroxyacetone phosphate and glyceraldehyde 3-phosphate per min at pH 7.4 at 25 °C.

Physical form

Crystalline suspension in 2.5 M $(NH_4)_2SO_4$, 0.01 M Tris, pH 7.5, 0.001 M EDTA

Analysis Note

Protein determined by biuret.

SAFETY INFORMATION

Storage Class Code	WGK	Flash Point(F)	Flash Point(C)
12 - Non Combustible Liquids	WGK 1	Not applicable	Not applicable

REGULATORY LISTINGS

Regulatory Listings are mainly provided for chemical products. Only limited information can be provided here for non-chemical products. No entry means none of the components are listed. It is the user's obligation to ensure the safe and legal use of the product.

EU REACH Annex XVII (Restriction List)

CAS No. 7783-20-2

DOCUMENTATION

Certificate of Analysis

Enter Lot Number to search for Certificate of Analysis (COA).

Lot Number

e.g. 023J5431

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Certificate of Origin

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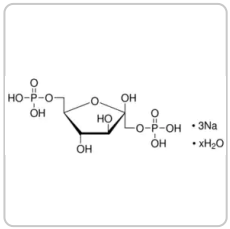


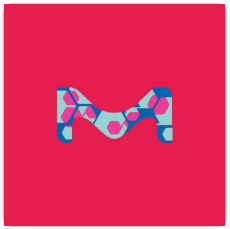
Sigma-Aldrich

F6803

D-Fructose 1,6-bisphosphate trisodium salt hydrate

≥98% (TLC)

View Price and Availability



Sigma-Aldrich

A9096

ProteoMass™ Aldolase MALDI-MS Standard

vial of 10 nmol, average mol wt 39,211.28 Da by calculation

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PEER REVIEWED PAPERS

A hydrophobic pocket in the active site of glycolytic aldolase mediates interactions with Wiskott-Aldrich syndrome protein

St-Jean M, et al.
The Journal of biological chemistry, 282(19), 14309-14315 (2007)

Structure of rabbit muscle aldolase at low resolution.

Sygusch J, et al.
The Journal of Biological Chemistry, 260(28), 15286-15290 (1985)

Effect of lithium salts on lactate dehydrogenase, adenylate kinase, and 1-phosphofructokinase activities

Russell P, et al.
Journal of Enzyme Inhibition and Medicinal Chemistry, 25(4), 551-556 (2010)

Structure of a class I tagatose-1,6-bisphosphate aldolase: investigation into an apparent loss of stereospecificity.

Clotilde LowKam et al.
The Journal of biological chemistry, 285(27), 21143-21152 (2010-04-30)

Tagatose-1,6-bisphosphate aldolase from Streptococcus pyogenes is a class I aldolase that exhibits a remarkable lack of chiral discrimination with respect to the configuration of hydroxyl groups at both C3 and C4 positions. The enzyme catalyzes the reversible cleavage of four

Native and denatured forms of proteins can be discriminated at edge plane carbon electrodes.

Veronika Ostatná et al.
Analytica chimica acta, 735, 31-36 (2012-06-21)

In an attempt to develop a label-free electrochemical method for detection of changes in protein structures based on oxidizability of tyrosine and tryptophan residues we tested different types of carbon electrodes. We found that using edge plane pyrolytic graphite electrode

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How to Work with Enzymes Supplied as Ammonium Sulfate Suspensions

Instructions for working with enzymes supplied as ammonium sulfate suspensions

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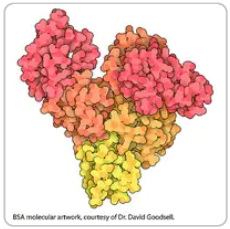

Sigma-Aldrich

A8806

Bovine Serum Albumin

fatty acid free, low endotoxin, lyophilized powder, BioReagent, suitable for cell culture, ≥96% (agarose gel electrophoresis)

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Sigma-Aldrich

A8781

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