Creative Enzymes®

Native Rabbit Aldolase

Cat. No. NATE-0048

Lot. No. (See product label)

Introduction

Description	Fructose-bisphosphate aldolase (EC 4.1.2.13), often just aldolase, is an enzyme catalyzing a reversible reaction that splits the aldol, fructose 1,6-bisphosphate, into the triose phosphates dihydroxyacetone phosphate (DHAP) and glyceraldehyde 3-phosphate (G3P). Aldolase can also produce DHAP from other (3S,4R)-ketose 1-phosphates such as fructose 1-phosphate and sedoheptulose 1,7-bisphosphate. Gluconeogenesis and the Calvin cycle, which are anabolic pathways, use the reverse reaction. Glycolysis, a catabolic pathway, uses the forward reaction. Aldolase is divided into two classes by mechanism.
Applications	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. This product is essentially sulfate-free and contains Citrate buffer salts.
Synonyms	aldolase; fructose-1,6-bisphosphate triosephosphate-lyase; Fructose-bisphosphate aldolase; fructose diphosphate aldolase; D-fructose-1,6-bisphosphate D-glyceraldehyde-3-phosphate-lyase; EC 4.1.2.13; 9024-52-6

Product Information

Species	Rabbit
Source	Rabbit muscle
Form	lyophilized powder. Essentially sulfate-free containing Citrate buffer salts
EC Number	EC 4.1.2.13
CAS No.	9024-52-6
Activity	Type I, lyophilized powder, > 8.0 units/mg protein; Type II, ammonium sulfate suspension, 10-20 units/mg protein
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.

Storage and Shipping Information

Storage	−20°C