Creative Enzymes®

glyceraldehyde-3-phosphate dehydrogenase (NADP+)

Cat. No. EXWM-1193

Lot. No. (See product label)

Introduction

Description Glyceraldehyde-3-phosphate dehydrogenase (NADP+) (EC 1.2.1.9) (GAPN) is an enzyme that irreversibly catalyzes the oxidation of glyceraldehyde-3-phosphate (GAP) to 3-phosphoglycerate (3-PG or 3-PGA) using the reduction of NADP+ to NADPH. GAPN is used in a variant of glycolysis that conserves energy as NADPH rather than as ATP. The NADPH and 3-PG can then be used for synthesis. The most familiar variant of glycolysis uses glyceraldehyde-3-phosphate dehydrogenase (GAPDH) and phosphoglycerate kinase to produce ATP. GAPDH is phosphorylating. GAPN is non-phosphorylating. GAPN was reported first by Rosenberg and Arnon in 1954. It has been found in plants, algae, and bacteria.

Synonyms triosephosphate dehydrogenase; dehydrogenase, glyceraldehyde phosphate (nicotinamide adenine dinucleotide phosphate); glyceraldehyde phosphate dehydrogenase (NADP); glyceraldehyde 3-phosphate dehydrogenase (NADP); NADP-glyceraldehyde phosphate dehydrogenase; NADP-glyceraldehyde-3-phosphate dehydrogenase; glyceraldehyde-3-phosphate:NADP reductase; nonphosphorylating glyceraldehyde-3-phosphate dehydrogenase; glyceraldehyde-3-phosphate dehydrogenase (NADP)

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.2.1.9

CAS No. 9028-92-6

Reaction D-glyceraldehyde 3-phosphate + NADP+ + H2O = 3-phospho-D-glycerate + NADPH + 2 H+

Notes This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.