Creative Enzymes®

Native Baker's yeast (S. cerevisiae) Triosephosphate Isomerase

Cat. No. NATE-0711

Lot. No. (See product label)

Introduction

Description Triose-phosphate isomerase (TPI or TIM) is an enzyme (EC 5.3.1.1) that catalyzes the reversible interconversion of the triose phosphate isomers dihydroxyacetone phosphate and D-glyceraldehyde 3-phosphate. TPI plays an important role in glycolysis and is essential for efficient energy production. TPI has been found in nearly every organism searched for the enzyme, including animals such as mammals and insects as well as in fungi, plants, and bacteria. However, some bacteria that do not perform glycolysis, like ureaplasmas, lack TPI.

Applications Triosephosphate isomerase has been used in a study to assess differential expression of fourteen proteins of uveal melanoma. Triosephosphate isomerase has also been used in a study to investigate the use of sigmoid pH gradients in free-flow isoelectric f ocusing of human endothelial cell proteins.

Synonyms Triose-phosphate isomerase; phosphotriose isomerase; triose phosphoisomerase; triose phosphate mutase; D-glyceraldehyde-3-phosphate ketol-isomerase; TPI; TIM; EC 5.3.1.1; 9023-78-3

Product Information

Source Baker's yeast (S. cerevisiae)

Form ammonium sulfate suspension; Crystalline suspension in 2.7 M (NH4)2SO4, 0.5 mM EDTA, pH 6.5

EC Number EC 5.3.1.1

CAS No. 9023-78-3

Activity ~10,000 units/mg protein

Unit Definition One unit will convert 1.0 µmole D-glyceraldehyde 3-phosphate to dihydroxyacetone phosphate per min at pH 7.6 at 25°C.

Storage and Shipping Information

Storage 2-8°C