

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 focusing 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