

Native Transketolase from Thermophillic bacteria

Cat. No. NATE-1162

Lot. No. (See product label)

Introduction

Description

Transketolase is highly specific for ketol donor substrates and is stereospecific and enantioselective to hydroxyaldehyde substrates with an (R) configuration. It specifically catalyzes the irreversible transfer of one ketol unit from α -hydroxypyruvic acid to an aldehyde to produce a D-threo (3S,4R)ketose.

Applications

This enzyme is a potential candidate for biocatalysis, suitable for pharmaceutical development / manufacturing. Asymmetric C-C bond formation, ketol donor D-xylulose-5-phosphate may be substituted by hydroxypyruvate; preparation of ketose sugars such as fructose analogs, azasugars and fluorogenic substrates.

Synonyms

Transketolase; EC 2.2.1.1; 9014-48-6; glycolaldehydetransferase; Glycolaldehyde Transferase

Product Information

Source

Thermophillic bacteria

Form

Frozen Liquid

EC Number

EC 2.2.1.1

CAS No.

9014-48-6

Optimum pH

8

Buffer

20mM Tris-HCl(pH 8.0), 1 mM DTT, 5 mM MgCl₂, 10 mM NaCl

Unit Definition

One unit is defined as the amount of enzyme producing 1 μ mol of D-glyceraldehyde 3-phosphate using ribose-5-phosphate and xylulose-5-phosphate from ribulose-5-phosphate with ribulose-phosphate-3-epimerase per minute.

Storage and Shipping Information

Storage

Store at -20°C