Creative Enzymes®

# 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 μmol 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