Creative Enzymes®

Native Baker's yeast (S. cerevisiae) D-Ribulose-5-phosphate 3-Epimerase

Cat. No. NATE-0659

Lot. No. (See product label)

Introduction

Description	RPE is a metalloenzyme and has been shown to use the divalent Zn2+ ion predominantly for catalysis. Human D-ribulose-5-phosphate 3-epimerase (hRPE) has been shown to use Fe2+ for catalysis.
Applications	D-Ribulose-5-phosphate 3-Epimerase is an enzyme that converts the reversible conversion of D-ribulose 5-phosphate into D-xylulose 5-phosphate, which is important for the cellular response against oxidative stress. D-Ribulose-5-phosphate 3-Epimerase is involved in the pentose phosphate pathway, pentose and glucuronate interconversions and carbon fixation. This product is from baker’s yeast and is provided as a lyophilized powder. It is useful in enzyme systems requiring low sulfate.
Synonyms	EC 5.1.3.1; RPE; phosphoribulose epimerase; erythrose-4-phosphate isomerase; phosphoketopentose 3-epimerase; xylulose phosphate 3-epimerase; phosphoketopentose epimerase; ribulose 5-phosphate 3-epimerase; D-ribulose phosphate-3-epimerase; D-ribulose 5-phosphate epimerase; D-ribulose-5-P 3-epimerase; D-xylulose-5-phosphate 3-epimerase; pentose-5-phosphate 3-epimerase; 9024-20-8

Product Information

Source	Baker's yeast (S. cerevisiae)
Form	lyophilized powder. Lyophilized and essentially sulfate-free; contains approx. 35% Citrate buffer salts.
EC Number	EC 5.1.3.1
CAS No.	9024-20-8
Activity	50-100 units/mg protein (modified Warburg-Christian)
Unit Definition	One unit will convert 1 µmole of D-ribulose 5-phosphate to D-xylulose 5-phosphate per min at pH 7.7 at 25°C when coupled with transketolase, α-glycerophosphate dehydrogenase, and triosephosphate isomerase.

Storage and Shipping Information

Storage	−20°C