Creative Enzymes®

Native Bovine Tautomerase

Cat. No. NATE-0691

Lot. No. (See product label)

Introduction

Description	In enzymology, phenylpyruvate tautomerase or Macrophage migration inhibitory factor (EC 5.3.2.1) is an enzyme that catalyzes the chemical reaction:keto-phenylpyruvate↔ enol-phenylpyruvate. Phenylpyruvate tautomerase has also been found to exhibit the same keto-enol tautomerism for 4-Hydroxyphenylpyruvic acid, which is structurally similar to phenylpyruvate but contains an additional hydroxyl moiety in the para position of the aromatic ring. This enzyme belongs to the family of isomerases, specifically those intramolecular oxidoreductases interconverting keto-and enol-groups. This enzyme participates in tyrosine metabolism and phenylalanine metabolism.
Applications	Tautomerase from bovine kidney has been used in a study to assess tritium isotope effects in the reaction catalyzed by 4-hydroxyphenylpyruvate dioxygenase. Tautomerase from bovine kidney has also been used in a study to investigate human macrophage migration inhibitory factor.
Synonyms	Tautomerase; phenylpyruvate tautomerase; EC 5.3.2.1; phenylpyruvic keto-enol isomerase; 9023-54-5

Product Information

Species	Bovine
Source	Bovine kidney
Form	aqueous solution
EC Number	EC 5.3.2.1
CAS No.	9023-54-5
Activity	1-4 units/mg protein (Lowry), ~10 units/mL
Concentration	~10 units/mL
Unit Definition	One unit will produce a first-order rate constant (k) of 1.0 at pH 6.2 at 25°C, using p-hydroxyphenylpyruvate (keto). Reaction vol = 3.3 ml.

Storage and Shipping Information

Storage	−20°C