

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