

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 \rightleftharpoons 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