Creative Enzymes®

Native Brewer's bottom yeast Orotidine-5'-monophosphate pyrophosphorylase

Cat. No. NATE-0498

Lot. No. (See product label)

Introduction

Description Orotate phosphoribosyltransferase (OPRTase) or Orotic acid phosphoribosyltransferase is an enzyme involved in pyrimidine biosynthesis. It catalyzes the formation of orotidine 5'-monophosphate (OMP) from orotate and phosphoribosyl pyrophosphate. In yeast and bacteria, orotate phosphoribosyltransferase is an independent enzyme with a unique gene coding for the protein, whereas in mammals and other multicellular organisms, the catalytic function is carried out by a domain of the bifunctional enzyme UMP synthase.

Applications This is the preferred enzyme for assaying orotidine 5′-monophosphate and for the production of OMP analogs from the corresponding orotic acid.

Synonyms orotidylic acid phosphorylase; orotidine-5'-phosphate pyrophosphorylase; OPRTase; orotate phosphoribosyl pyrophosphate transferase; orotic acid phosphoribosyltransferase; orotidine 5'-monophosphate pyrophosphorylase; orotidine monophosphate pyrophosphorylase; orotidine phosphoribosyltransferase; orotidylate phosphoribosyltransferase; orotidylate pyrophosphorylase; orotidylic acid pyrophosphorylase; orotidylic phosphorylase; orotidylic pyrophosphorylase; EC 2.4.2.10; 9030-25-5

Product Information

Source Brewer's bottom yeast

Form Lyophilized powder containing approx. 50% buffer salts

EC Number EC 2.4.2.10

CAS No. 9030-25-5

Activity ~25 units/mg protein (modified Warburg-Christian)

Unit Definition One unit will convert 1.0 µmole of orotidine 5'-monophosphate to orotic acid in one hr at pH 8.0 at 30°C.

Storage and Shipping Information

Storage −20°C