Creative Enzymes®

Apyrase from Potato, Recombinant

Cat. No. NATE-1268

Lot. No. (See product label)

Introduction

Description Apyrase is found in all eukaryotes and some prokaryotes. Apyrase, from potato, has a crucial role in regulating growth and development. Apyrase is involved in the inactivation of synaptic ATP as a neurotransmitter following nerve stimulation and in the inhibition of ADP induced platelet aggregation to prevent thrombosis. Divalent metal ions are required for activity and best activity is observed with calcium ion at 5 mM.

Applications Highly efficient degradation of ATP to AMP. Removal of deoxynucleotides in DNA pyrosequencing between cycles. Conversion of 5´ triphosphorylated RNA to ligatable monophosphorylated form that can be used for 5´ RNA adaptor ligation. Conversion of 5´ triphosphorylated RNA to 5´ exonuclease XRN-1 sensitive monophosphorylated RNA.

Synonyms ATP-diphosphatase; adenosine diphosphatase; ADPase; ATP diphosphohydrolase; apyrase; EC 3.6.1.5; 9000-95-7

Product Information

Species Potato

Source E. coli

Form 50 mM NaCl, 20 mM MES (pH 6.5 25°C), 0.1 mM CaCl2, 1 mM DTT, 0.1% Tween-20 and 50% glycerol.

Molecular Weight 47 kDa

Activity 3,000 units/mg

Concentration 500 units/ml

Unit Definition One unit is defined as the amount of enzyme that catalyses the release of 1 µmol of inorganic phosphate from ATP (1 mM) in 1X Apyrase Reaction Buffer in 1 minute at 30°C in a total reaction of 50 µl.

Storage and Shipping Information

Storage at -20°C