ALPHA DIAGNOSTIC INTERNATIONAL

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Product Data Sheet

Cat # RP-356	Recombinant Polyphospate Kinase	**Size**: 50 IU

PPK catalyzes the reversible transfer of phosphate between polyphosphate and ATP. The phosphorylation of ADP to ATP by polyphosphate kinase is by a processive mechanism; the phosphorylation occurs without release of the polymer from the enzyme prior to termination of the reaction.

Source: Propionibacterium shermanii Polyphosphate Kinase purified circa 10 fold . Free of all Polyphosphate Glucokinase activity. Native MW = 83 kD (monomer) The protein was lyophilized from PPK solution containing 11.54 U/ml of PPK activity, 10.3 mg/ml total protein, 100mM potassium phosphate pH 6.8 and 25mM sodium polyphosphate

Applications and Suggested Dilutions: The contents of the vial can be reconstituted in 1-10 ml deionized water. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: Lyophilized Polyphosphate kinase although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution PPK should be stored at 4℃ between 2-7 days and for future use below -18℃. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage.

Definition of Activity Units: The amount of Polyphosphate kinase required to convert 1 µmole ADP to ATP per minute at pH 7.5, using polyphosphate as phosphate donor.

Specific Activity: 1.12 U/mg.

Required Cofactors: The reaction requires Mg^{2+}.

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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