

Pyruvate Kinase, from Rabbit Muscle

Product Information

Cat#	TRA-050
Specification	1KU,5KU
Description	<p>Glycolysis is the primary pathway for glucose utilization in most organisms. In the final step, pyruvate kinase (PK) catalyzes the irreversible transfer of phosphate from phosphoenolpyruvate to ADP, yielding pyruvate and ATP. PK forms a homotetramer and serves as a key regulator of glycolytic flux and ATP production. Four mammalian isoenzymes exist: M1 (muscle, heart, brain), M2 (kidney, adipose, lung, liver, lymphocytes, intestine), L (liver, kidney), and R (red blood cells). Due to strong M2 overexpression in tumor cells and its release into body fluids, PK holds potential as a tumor marker.</p>
Applications	<p>For biochemical reactions and enzyme analysis; for structural studies of the reaction mechanism in the final step of glycolysis; for investigating ATP-dependent phosphorylation of α-substituted carboxylic acids; as a component of the reconstitution buffer for malate dehydrogenase (MDH) assays; Used as a supplement component in detection reagent buffers for phosphoglycerate mutase (PGM) assays; employed in <i>Pseudomonas</i> cells to convert ADP to ATP; utilized in enzymatic assays for ADP, ATP, pyruvate, or PEP when bound to associated enzymes; applied in plant spectrophotometric measurements of ATP hydrolysis; also employed in studies of PK deficiency.</p>
Synonyms	Pyruvate kinase from rabbit muscle; ATP: pyruvate 2-O-phosphotransferase;
Form	Lyophilized (freeze-dried) powder
Species	Rabbit
Source	Rabbit muscle
Activity	200 U/mg
Unit Definition	One unit is defined as the amount of enzyme that convert 1.0 μ mol of phosphoenolpyruvate to pyruvate per minute at pH 7.6 at 37°C.



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Molecular Weight	237 kDa (Tetramer)
Purity	> 95% by SDS-PAGE; no detectable DNase and RNase; Creatine Kinase < 2 U/mg; LDH < 0.1 U/mg
Gene ID	100008676
Accession	P11974
Storage	Store at -20°C: Valid for 2 years. Store at 4°C or room temperature for 3 days shows no significant decrease in activity. Store at 37°C for 3 days reduces activity by approximately 10%.

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