



Product Specification Sheet

Pyruvate Kinase

□ Cat #PKI-02

Pyruvate Kinase (350 U/mg protein), Rabbit muscle

SIZE: 5 kU

Pyruvate kinase is an enzyme involved in glycolysis. It catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate to ADP, yielding a pyruvate molecule. There are 4 isozymes of pyruvate kinase in mammals: L, R, M1 and M2. L type is major isozyme in the liver, R is found in red cells, M1 is the main form in muscle, heart and brain, and M2 is found in early fetal tissues as well as in most cancer cells.

Human PKM1/2 is 531 aa protein. Human PKM2 389-433 aa (IYHLQFEELRR LAPITSDPTE ATAVGAVEASFKCCSGAIIIVLTK) is replaced by (MFHRKLFEEELVRASSHSTDLMEAMA MGSVEASYKCLAAAL IVLTE) in PKM1. The PKM2 isoenzyme of pyruvate kinase is specifically expressed at high levels in tumor cells, and can be measured in plasma of patients with advanced breast cancer. The marker is useful for measuring disease activity, sensitivity to chemotherapy and recurrence.

Synonyms:

Pyruvate kinase isozymes M1/M2, EC 2.7.1.40, Pyruvate kinase muscle isozyme, Pyruvate kinase 2/3, Cytosolic thyroid hormone-binding protein, CTHBP, THBP1, M2PK, PKM2, PK3, PK2, PKM, TCB, OIP3, MGC3932, Tumor Type M2 Pyruvate Kinase

Source: Rabbit Muscle

Activity: >300 U/mg, one unit will catalyze the conversion of 1.0 micromole of phosphoenolpyruvate to pyruvate per minute at pH 7.6 at 37°C

Contaminants: CPK: <1% LDH: <0.01%

Form: Lyophilized from Tris chloride, pH 7.7

Application: Enzymatic determination of ADP, ATP, pyruvate or phosphoenolpyruvate (PEP) when coupled with the related enzymes

Molecular Weight: 237 kDa as a tetramer of four equal subunits of 57 kDa

Reaction: ATP+ pyruvate= ADP + phosphoenolpyruvate

E.C Number: 2.7.1.40

CAS Number: 9001-59-6

Accession Number: P14618

Storage

Long-term: At -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw working and dilute solutions.

Stability: 12 months at -20°C or below.

Shipping: 4°C for solutions and room temperature for powder.

General References: (1) Tani K, et al., (1988) Proc. Natl. Acad. Sci. U.S.A. 85:1792-1795; Takenaka M. et al., (1991) Eur. J. Biochem. 198:101-106

*This product is for in vitro research use only.

Related material available from ADI

Catalog#	Description
AB-23038-A	Rabbit Anti-Human pyruvate kinase, muscle (PKM) (PKM- asymmetric dimethyl) IgG (aff pure)
AB-23038-CP	Human pyruvate kinase, muscle (PKM) control (non- asymmetric dimethyl) peptide
PKM14-A	Rabbit Anti-Human Pyruvate Kinase M (PKM) IgG (aff pure)
PKM14-C	Recombinant (E.Coli) purified Human Pyruvate Kinase M2 protein control for WB
PKR11-A	Rabbit Anti-Human Pyruvate Kinase L/R (PKL/R) IgG # 1 (aff pure)
PKR12-A	Rabbit Anti-mouse Pyruvate Kinase L/R (PKL/R) IgG # 2 (aff pure)
PKRL13-A	Rabbit Anti-Human Pyruvate Kinase L/R (PKL/R) IgG (aff pure)
RP-744	Recombinant (E. coli) Human Tumour Type M2 Pyruvate Kinase
SP-101388-1	Kinase Domain of Pyruvate Kinase, porcine liver (AA: Leu-Arg-Arg-Ala-pSer-Leu-Gly) (MW: 853.88)
PKI-02	221108IA