

Product datasheet for **AM05641PU-S**

Hexokinase 1 (HK1) Mouse Monoclonal Antibody [Clone ID: 4D7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	4D7
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	ELISA. Western blot (1:1,000). Immunofluorescence (1:1,000). Immunohistochemistry on Paraffin Sections (5 µg/ml): This antibody was validated for use in immunohistochemistry on a panel of 21 formalin-fixed, paraffin-embedded (FFPE) human tissues after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with the primary antibody, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Recombinant Human Hexokinase 1 (1-917 aa) purified from E.coli
Specificity:	The antibody recognizes all four isoforms of Hexokinase (1~4) in recombinant protein.
Formulation:	PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol State: Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Protein-G affinity chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	hexokinase 1



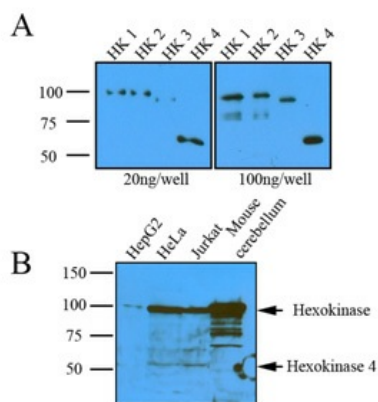
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Database Link: [Entrez Gene 3098 Human P19367](#)

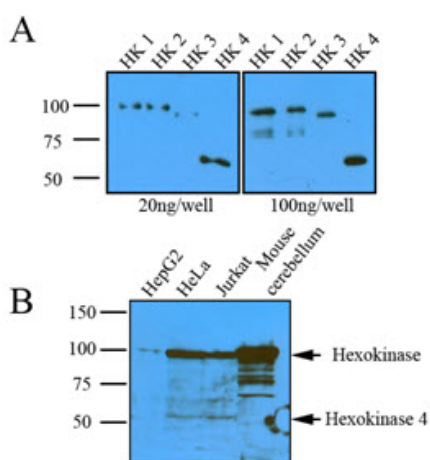
Background: Hexokinase is the first enzyme in the glycolytic pathway, catalyzing the transfer of a phosphoryl group from ATP to glucose to form glucose-6-phosphate and ADP. In mammals, four distinct enzymes-types 1 to 4 hexokinases-have been identified. The enzyme is found in most cells, but there is tissue specificity for the particular type of hexokinase. Hexokinase1 is found in the adipose tissue and liver and encodes a ubiquitous form of hexokinase which localizes to the outer membrane of mitochondria. A deficiency in hexokinase 1 is implicated in the rare hereditary autosomal recessive disease known as nonspherocytic haemolytic anaemia.

Synonyms: HK1, Hexokinase type I, Brain form hexokinase

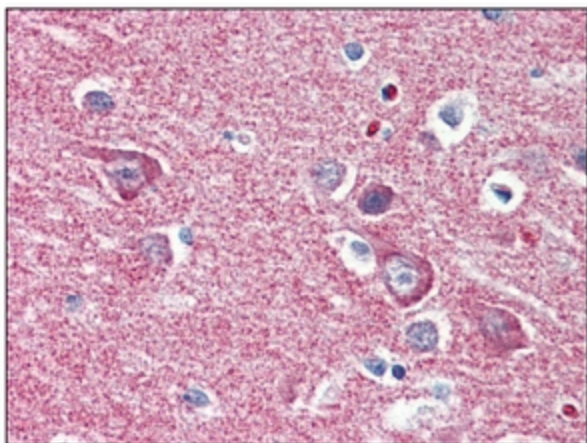
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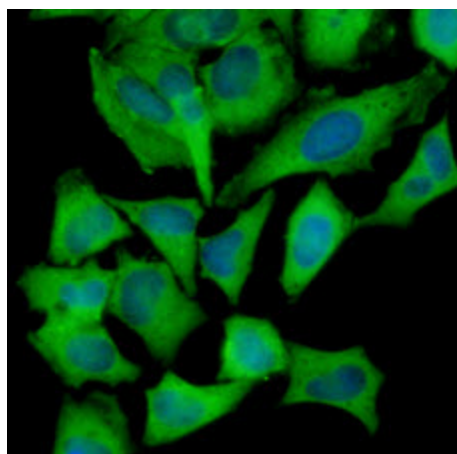
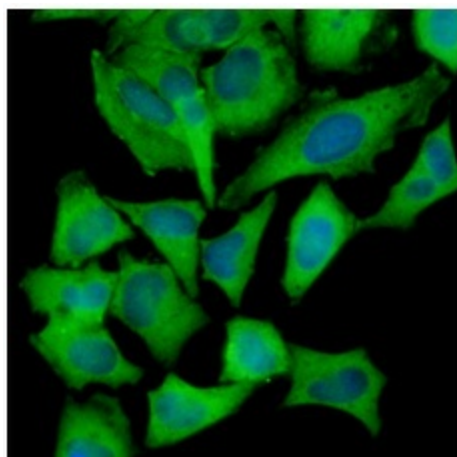
(A): Recombinant protein (20ng or 100ng) of Hexokinase four isoform were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human Hexokinase (1:1000). (B): Cell lysates (20ug) were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human Hexokinase (1:1,000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



Western blot analysis: (A): Recombinant protein (20ng or 100ng) of Hexokinase four isoform were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human Hexokinase (1:1000). (B): Cell lysates (20 ug) were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human Hexokinase (1:1,000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



Immunohistochemistry: -N HK1 antibody staining of Formalin-Fixed, Paraffin-Embedded Human Brain, Cortex at 5 ug/ml followed by biotinylated anti-mouse IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.



Immunofluorescence of human HeLa cells stained with Hoechst 33342 (Blue) and monoclonal anti-Hexokinase antibody (1:1000) with Alexa 488 (Green).