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Anti-Hexokinase II Picoband Antibody

Catalog # ABO10181

Specification

Anti-Hexokinase II Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P52789
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Hexokinase-2 (HK2) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Hexokinase II Picoband Antibody - Additional Information

Gene ID 3099

Other Names
Hexokinase-2, 2.7.1.1, Hexokinase type II, HK II, Muscle form hexokinase, HK2

Calculated MW
102380 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Mitochondrion outer membrane . Its hydrophobic N-terminal sequence may be involved in membrane binding. .

Tissue Specificity
Predominant hexokinase isozyme expressed in insulin-responsive tissues such as skeletal muscle.

Protein Name
Hexokinase-2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human Hexokinase II (460-497aa AYRLADQHRARQKTLEHLQLSHDQLLEVKRRMKVEMER), different from the related mouse and rat sequences by four amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-Hexokinase II Picoband Antibody - Protein Information

Name HK2 (HGNC:4923)

Function
Catalyzes the phosphorylation of hexose, such as D-glucose and D-fructose, to hexose 6-phosphate (D-glucose 6-phosphate and D- fructose 6-phosphate, respectively) (PubMed:23185017, PubMed:26985301, PubMed:29298880). Mediates the initial step of glycolysis by catalyzing phosphorylation of D-glucose to D-glucose 6-phosphate (PubMed:29298880). Plays a key role in maintaining the integrity of the outer mitochondrial membrane by preventing the release of apoptogenic molecules from the intermembrane space and subsequent apoptosis (PubMed:18350175).

Cellular Location
Mitochondrion outer membrane; Peripheral membrane protein. Cytoplasm, cytosol Note=The mitochondrial-binding peptide (MBP) region promotes association with the mitochondrial outer membrane (PubMed:29298880) The interaction with the mitochondrial outer membrane via the mitochondrial-binding peptide (MBP) region promotes higher stability of the protein (PubMed:29298880). Release from the mitochondrial outer membrane into the cytosol induces permeability transition pore (PTP) opening and apoptosis (PubMed:18350175).

Tissue Location
Predominant hexokinase isozyme expressed in insulin-responsive tissues such as skeletal muscle

Anti-Hexokinase II Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Hexokinase II Picoband Antibody - Images

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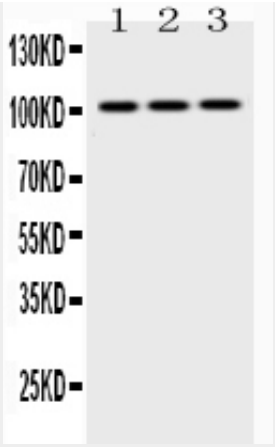

Western blot analysis of Hexokinase II expression in rat testis extract (lane 1), mouse testis extract (lane 2) and JURKAT whole cell lysates (lane 3). Hexokinase II at 102KD was detected using rabbit anti- Hexokinase II Antigen Affinity purified polyclonal antibody (Catalog # ABO10181) at 0.5 Î¼g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-Hexokinase II Picoband Antibody - Background

Hexokinase 2, also known as HK2, is an enzyme which in humans is encoded by the HK2 gene on chromosome 2. Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes hexokinase 2, the predominant form found in skeletal muscle. It localizes to the outer membrane of mitochondria. Expression of this gene is insulin-responsive, and studies in rat suggest that it is involved in the increased rate of glycolysis seen in rapidly growing cancer cells.