

**Anti-Hexokinase II Picoband Antibody**  
Catalog # ABO10181**Specification**

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**Anti-Hexokinase II Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P52789</a>
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<br>

**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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**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:<a href="http://www.uniprot.org/citations/23185017" target="\_blank">23185017</a>, PubMed:<a href="http://www.uniprot.org/citations/26985301" target="\_blank">26985301</a>, PubMed:<a href="http://www.uniprot.org/citations/29298880" target="\_blank">29298880</a>). Mediates the initial step of glycolysis by catalyzing phosphorylation of D-glucose to D-glucose 6-phosphate (PubMed:<a href="http://www.uniprot.org/citations/29298880" target="\_blank">29298880</a>). 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:<a href="http://www.uniprot.org/citations/18350175" target="\_blank">18350175</a>).

**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).

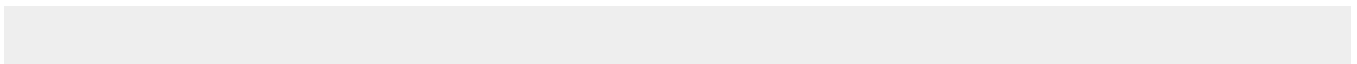
**Tissue Location**

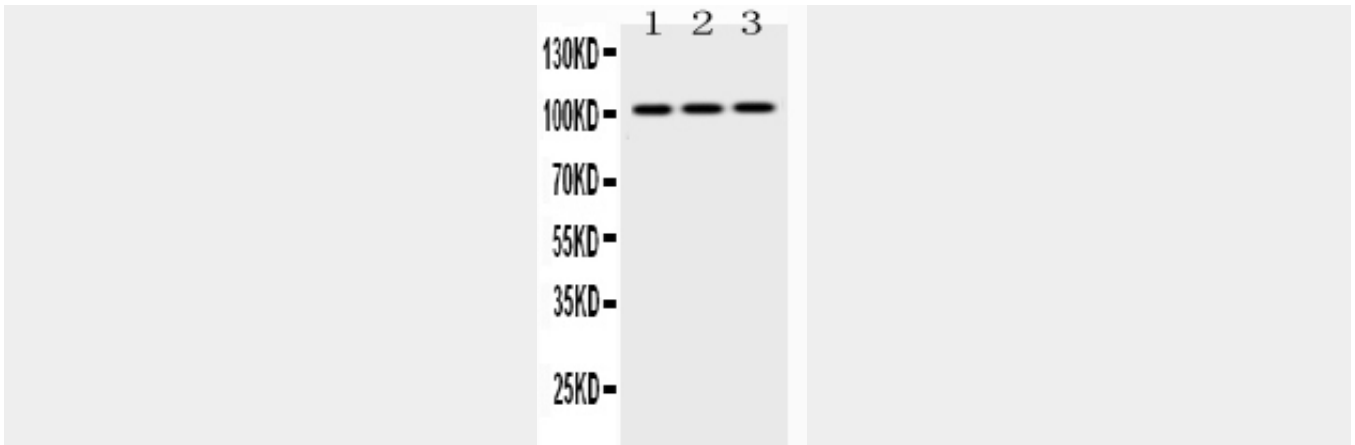
Predominant hexokinase isozyme expressed in insulin-responsive tissues such as skeletal muscle

**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 Cytometry](#)
- [Cell Culture](#)

**Anti-Hexokinase II Picoband Antibody - Images**



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  $\mu$ g/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.