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HK2 (Hexokinase II) (Center) Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10116

Specification

HK2 (Hexokinase II) (Center) Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	P52789
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**102380**

HK2 (Hexokinase II) (Center) Antibody - Additional Information

Gene ID 3099

Positive Control	**Western Blot: A375 cell lysate Immunohistochemistry: Human cancer tissue**
Application & Usage	**The antibody can be used for ELISA (0.25 µg/ml), Western blotting (0.5 – 2.5 µg/ml) and Immunohistochemistry (2.5 – 5.0 µg/ml).**

Other Names
Hexokinase type II, HK II, Muscle form hexokinase

Target/Specificity
HK2 (Hexokinase II)

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.25 mg/ml) purified rabbit Ig polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
HK2 (Hexokinase II) (Center) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HK2 (Hexokinase II) (Center) 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

HK2 (Hexokinase II) (Center) 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

HK2 (Hexokinase II) (Center) Antibody - Images

HK2 (Hexokinase II) (Center) Antibody - Background

In vertebrates there are four major glucose-phosphorylating isoenzymes, designated hexokinase I, II, III, and IV. Hexokinase is an allosteric enzyme inhibited by its product GLC-6-P. Hexokinase activity is involved in the first step in several metabolic pathways. HK3 is bound to the outer mitochondrial membrane. Its hydrophobic N-terminal sequence may be involved in membrane bindng. It is the predominant hexokinase isozyme expressed in insuline-responsive tissues such as skeletal muscle. The N- and C-terminal halves of this hexokinase show extensive sequence

similarity to each other. The catalytic activity is associated with the C-terminus while regulatory function is associated wiht the N-terminus. Altho µgh found in NIDDM patients, genetic variations of HK2 do not contribute to the disease.