

HK2 (Hexokinase II) (NT) Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10115**Specification**

HK2 (Hexokinase II) (NT) 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) (NT) Antibody - Additional Information**Gene ID** 3099

Positive Control	Western Blot: A375 cell lysate Immunohistochemistry: Human skeletal muscle 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) (NT) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HK2 (Hexokinase II) (NT) 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) (NT) 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](#)

HK2 (Hexokinase II) (NT) Antibody - Images**HK2 (Hexokinase II) (NT) 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 binding. It is the predominant hexokinase isozyme expressed in insulin-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 with the N-terminus. Although found in NIDDM patients, genetic variations of HK2 do not contribute to the disease.