

# Anti-Hexokinase II Antibody [F1-D3]

## EM1710-04



<b>Product Type:</b>	Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB, IHC-P, FC
<b>Molecular Wt:</b>	102 kDa
<b>Clone number:</b>	F1-D3

**Description:** The hexokinases utilize Mg-ATP as a phosphoryl donor to catalyze the first step of intracellular glucose metabolism, the conversion of glucose to glucose-6-phosphate. Four hexokinase isoenzymes have been identified, including hexokinase I (HXK I), hexokinase II (HXK II), hexokinase III (HXK III) and hexokinase IV (HXK IV, also designated glucokinase or GCK). Hexokinases I-III each contain an N-terminal cluster of hydrophobic amino acids. Glucokinase lacks the N-terminal hydrophobic cluster. The hydrophobic cluster is thought to be necessary for membrane binding. This is substantiated by the finding that glucokinase has lower affinity for glucose than do the other hexokinases. HXK I has been shown to be expressed in brain, kidney and heart tissues as well as in hepatoma cell lines. HXK II is involved in the uptake and utilization of glucose by adipose and skeletal tissues. Of the hexokinases, HXK III has the highest affinity for glucose. Glucokinase is expressed in pancreatic beta cells where it functions as a glucose sensor, determining the "set point" for insulin secretion.

**Immunogen:** Recombinant protein

**Positive control:** Jurkat, Hela, HEK293, human esophagus cancer tissue, human lung cancer tissue, K562.

**Subcellular location:** Mitochondrion outer membrane.

**Database links:** SwissProt: P52789 Human

**Recommended Dilutions:**

<b>WB</b>	1:500-1:1,000
<b>IHC-P</b>	1:100-1:500
<b>FC</b>	1:100-1:200

**Storage Buffer:** Purified antibody in PBS with 0.05% sodium azide.

**Storage Instruction:** 4°C; -20°C for long term storage.

**Purity:** Protein A affinity purified.

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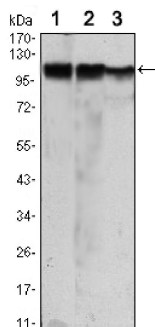
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## Images



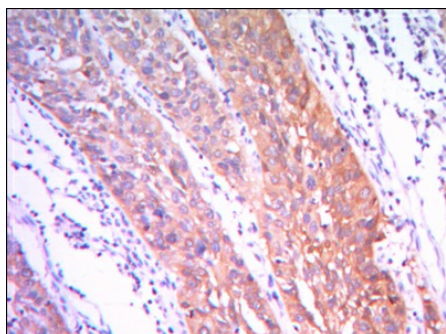
**Fig1:** Western blot analysis of Hexokinase 2 on different cell lysates using anti- Hexokinase 2 antibody at 1/1,000 dilution.

**Positive control:**

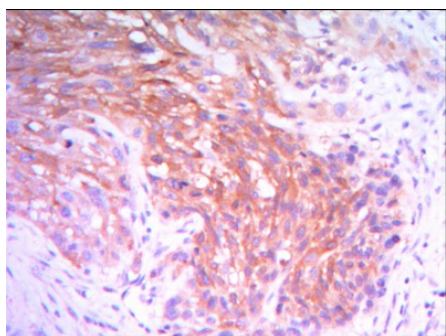
Lane 1: Jurkat

Lane 2: Hela

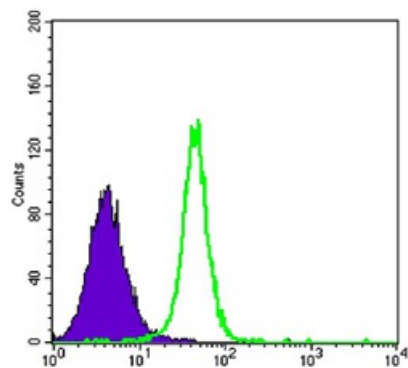
Lane 3: HEK293



**Fig2:** Immunohistochemical analysis of paraffin-embedded human esophagus cancer tissue using anti- Hexokinase 2 antibody. Counter stained with hematoxylin.



**Fig3:** Immunohistochemical analysis of paraffin-embedded human lung tissue using anti- Hexokinase 2 antibody. Counter stained with hematoxylin.



**Fig4:** Flow cytometric analysis of K562 cells with Hexokinase 2 antibody at 1/100 dilution (green) compared with an unlabelled control (cells without incubation with primary antibody; purple).

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Li Y et al. Mitochondrial pyruvate carrier function is negatively linked to Warburg phenotype in vitro and malignant features in esophageal squamous cell carcinomas. *Oncotarget* 8:1058-1073 (2017).
2. Yang HJ et al. Expression of Glut-1 and HK-II in Pancreatic Cancer and Their Impact on Prognosis and FDG Accumulation. *Transl Oncol* 9:583-591 (2016).

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