bs-9455R **[Primary Antibody]**

Hexokinase II Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 3099 **SWISS:** P52789

Target: Hexokinase II

Immunogen: KLH conjugated synthetic peptide derived from human Hexokinase II/HxK2: 101-200/917.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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.

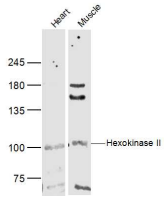
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:50-200)

Reactivity: Human, Mouse (predicted: Rat, Rabbit, Pig, Sheep, Cow, Dog)

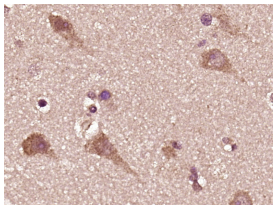
Predicted MW.: 102 kDa

Subcellular Location: Cell membrane ,Cytoplasm

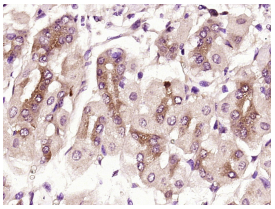
VALIDATION IMAGES



Sample: Heart (Mouse) Lysate at 40 ug Muscle (Mouse) Lysate at 40 ug Primary: Anti-Hexokinase II (bs-9455R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 102 kD Observed band size: 102 kD



Paraformaldehyde-fixed, paraffin embedded (Human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Hexokinase 2) Polyclonal Antibody, Unconjugated (bs-9455R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Hexokinase 2) Polyclonal Antibody, Unconjugated (bs-9455R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=9.314]** Zhou et al. Melatonin protects cardiac microvasculature against ischemia/reperfusion injury via suppression

of mitochondrial fission-VDAC1-HK2-mPTP-mitophagy axis. (2017) J.Pineal.Re. 63 WB,ICC ;Mouse. 28398674

- **[IF=5.8]** Xu Jianguo. et al. PDGF-BB accelerates TSCC via fibroblast lactates limiting miR-26a-5p and boosting mitophagy. CANCER CELL INT. 2024 Dec;24(1):1-18 IHC ;Human. 38169376
- **[IF=2.886]** Yan Liu. et al. CircTTBK2 Contributes to the Progression of Glioma Through Regulating miR-145-5p/CPEB4 Axis. Cancer Manag Res. 2020; 12: 8183–8195 WB ;Human. 32982415
- **[IF=2.4]** Zhao Xuan. et al. CircSFMBT2 Plays an Oncogenic Role in Lung Adenocarcinoma Depending on the miR-1305/SALL4 Axis. BIOCHEM GENET. 2023 Dec;:1-19 WB ;Human. 38127171