

KD-Validated Anti-Hexokinase 1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI2361**Specification****KD-Validated Anti-Hexokinase 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P19367
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 102 kDa, observed, 102 kDa
Gene Name	KDa
Aliases	HK1 Brain Form Hexokinase; Hexokinase Type I; Hexokinase-1; Hexokinase-A; EC 2.7.1.1; Neuropathy, Hereditary Motor And Sensory, Russe Type; Glycolytic Enzyme; Hexokinase IR; Hexokinase; EC 2.7.1; NEDVIBA; HK1-Ta; HK1-Tb; HK1-Tc; HMSNR; HXK1; NMSR; RP79; HK I; HKD; HKI; HK
Immunogen	A synthesized peptide derived from human Hexokinase 1

KD-Validated Anti-Hexokinase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	3098
Other Names	
Hexokinase-1, 2.7.1.1, Brain form hexokinase, Hexokinase type I, HK I, Hexokinase-A, HK1 (HGNC:4922)	

KD-Validated Anti-Hexokinase 1 Rabbit Monoclonal Antibody - Protein Information**Name** HK1 ([HGNC:4922](#))**Function**

Catalyzes the phosphorylation of various hexoses, such as D- glucose, D-glucosamine, D-fructose, D-mannose and 2-deoxy-D-glucose, to hexose 6-phosphate (D-glucose 6-phosphate, D-glucosamine 6-phosphate, D-fructose 6-phosphate, D-mannose 6-phosphate and 2-deoxy-D-glucose 6- phosphate, respectively) (PubMed:[1637300](http://www.uniprot.org/citations/1637300), PubMed:[25316723](http://www.uniprot.org/citations/25316723), PubMed:[27374331](http://www.uniprot.org/citations/27374331)). Does not phosphorylate N-acetyl-D-glucosamine (PubMed:[27374331](http://www.uniprot.org/citations/27374331)). Mediates the initial step of glycolysis by catalyzing phosphorylation of D-glucose to D-glucose 6-phosphate (By

similarity). Involved in innate immunity and inflammation by acting as a pattern recognition receptor for bacterial peptidoglycan (PubMed:27374331). When released in the cytosol, N-acetyl-D-glucosamine component of bacterial peptidoglycan inhibits the hexokinase activity of HK1 and causes its dissociation from mitochondrial outer membrane, thereby activating the NLRP3 inflammasome (PubMed:27374331).

Cellular Location

Mitochondrion outer membrane; Peripheral membrane protein. Cytoplasm, cytosol. Note=The mitochondrial-binding peptide (MBP) region promotes association with the mitochondrial outer membrane (Probable). Dissociates from the mitochondrial outer membrane following inhibition by N-acetyl-D-glucosamine, leading to relocation to the cytosol (PubMed:27374331).

Tissue Location

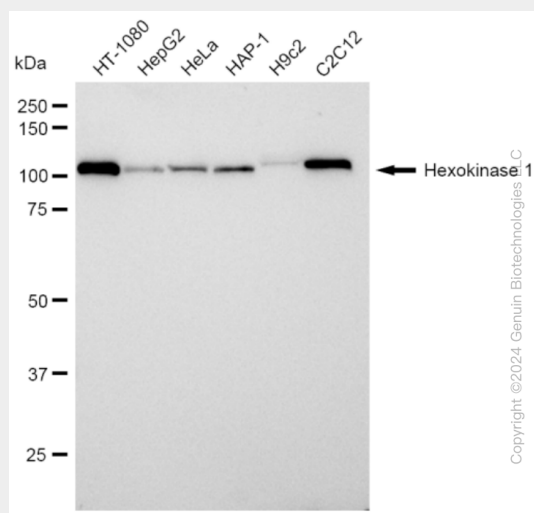
Isoform 2: Erythrocyte specific (Ref.6). Isoform 3: Testis-specific (PubMed:10978502). Isoform 4: Testis-specific (PubMed:10978502). {ECO:0000269|PubMed:10978502, ECO:0000269|Ref.6}

KD-Validated Anti-Hexokinase 1 Rabbit Monoclonal Antibody - Protocols

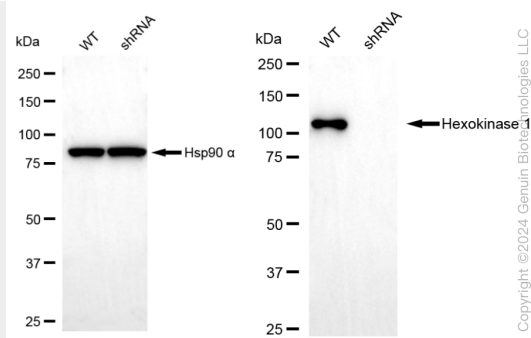
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

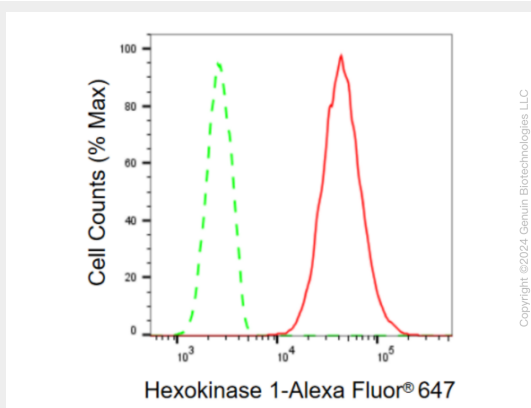
KD-Validated Anti-Hexokinase 1 Rabbit Monoclonal Antibody - Images



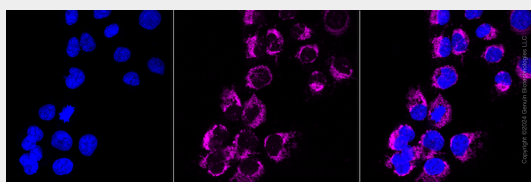
Western blotting analysis using anti-Hexokinase 1 antibody (Cat#AGI2361). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Hexokinase 1 antibody (Cat#AGI2361, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Western blotting analysis using anti-Hexokinase 1 antibody (Cat#AGI2361). Hexokinase 1 expression in wild type (WT) and Hexokinase 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Hexokinase 1 antibody (Cat#AGI2361,1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Flow cytometric analysis of Hexokinase 1 expression in HT-1080 cells using Hexokinase 1 antibody (Cat#AGI2361,1:2,000). Green, isotype control; red, Hexokinase 1



Immunocytochemical staining of HT-1080 cells with Hexokinase 1 antibody (Cat#AGI2361, 1:1,000). Nuclei were stained blue with DAPI; Hexokinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.