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Anti-HK1 / Hexokinase 1 Antibody (C-Terminus)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18244

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	P19367
Predicted	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	102486
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	3098
Alias Symbol	HK1
Other Names	HK1, Brain form hexokinase, Hexokinase 1, Hexokinase type I, HK I, HK1-tb, HK1-tc, HKI, Hexokinase type 1, HK1-ta, HXK1, Glycolytic enzyme, Hexokinase-1, Type 1 hexokinase, Type i hexokinase
Target/Specificity	Hexokinase 1 antibody is human, mouse and rat reactive. Multiple isoforms of Hexokinase 1 are known to exist.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-HK1 / Hexokinase 1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

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, PubMed:25316723, PubMed:27374331). Does not phosphorylate N-acetyl-D-glucosamine (PubMed: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}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.