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

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18244

## Product Information

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| **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

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| **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

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| **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 |

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| | 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} |