Product Name: Hexokinase 1 (16D2) Rabbit Monoclonal Antibody
Catalog #: AMRe12002

Summary

Production Name	Hexokinase 1 (16D2) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
Purification	Affinity purification

Immunogen

Gene Name	HK1
Alternative Names	HK1;HK1-ta;HK1-tb;HK1-tc;HKI;HXK1; Hexokinase 1;
Gene ID	3098.0
SwissProt ID	P19367.A synthetic peptide of human Hexokinase 1

Application

Dilution Ratio	WB: 1:1000-1:5000
Molecular Weight	103kDa

Background

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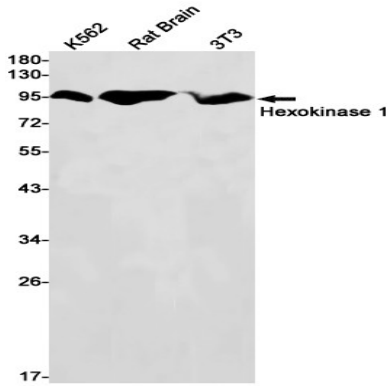
Hexokinases I, II, and III are associated with the outer mitochondrial membrane and are critical for maintaining an elevated rate of aerobic glycolysis in cancer cells (Warburg Effect) in order to compensate for the increased energy demands associated with rapid cell growth and proliferation. Catalyzes 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).

Research Area

Image Data



Western blot detection of Hexokinase 1 in K562,Rat Brain,3T3 cell lysates using Hexokinase 1 antibody(1:1000 diluted).

Note

For research use only.