G-Biosciences Image not found or type unknown

Immunotag™ PHKA1/2 Polyclonal Antibody

Antibody Specification

Catalog No.	ITT3700
Product Description	Immunotag™ PHKA1/2 Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PHKA1/2
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IF,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from PHKA1/2, at AA range: 1-80
Specificity	PHKA1/2 Polyclonal Antibody detects endogenous levels of PHKA1/2 protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	PHKA1/PHKA2
Accession No.	P46020/P46019 Q64649
Alternate Names	PHKA1; PHKA; Phosphorylase b kinase regulatory subunit alpha; skeletal muscle isoform; Phosphorylase kinase alpha M subunit; PHKA2; PHKLA; PYK; Phosphorylase b kinase regulatory subunit alpha, liver isoform; Phosphorylase kinase alpha L sub

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Description	phosphorylase kinase regulatory subunit alpha 1(PHKA1) Homo sapiens Phosphorylase kinase is a polymer of 16 subunits, four each of alpha, beta, gamma and delta. The alpha subunit includes the skeletal muscle and hepatic isoforms, and the skeletal muscle isoform is encoded by this gene. The beta subunit is the same in both the muscle and hepatic isoforms, and encoded by one gene. The gamma subunit also includes the skeletal muscle and hepatic isoforms, which are encoded by two different genes. The delta subunit is a calmodulin and can be encoded by three different genes. The gamma subunits contain the active site of the enzyme, whereas the alpha and beta subunits have regulatory functions controlled by phosphorylation. The delta subunit mediates the dependence of the enzyme on calcium concentration. Mutations in this gene cause glycogen storage disease type 9D, also known as X-linked muscle glycogenosis. Alternatively spliced transcript varian
Cell Pathway/ Category	Calcium,Insulin_Receptor,
Protein Expression	Brain,Muscle,
Subcellular Localization	cytosol,plasma membrane,phosphorylase kinase complex,
Protein Function	disease:Defects in PHKA1 are the cause of glycogen storage disease type 9D (GSD9D) [MIM:300559]; also known as X-linked muscle glycogenosis. GSD9D is a metabolic disorder characterized by slowly progressive, predominantly distal muscle weakness and atrophy. Clinical features include exercise intolerance with early fatiguability, pain, cramps and occasionally myoglobinuria.,enzyme regulation:By phosphorylation of various serine residues. Allosteric regulation by calcium.,function:Phosphorylase b kinase catalyzes the phosphorylation of serine in certain substrates, including troponin I. The alpha chain may bind calmodulin.,pathway:Glycan biosynthesis; glycogen metabolism.,similarity:Belongs to the phosphorylase b kinase regulatory chain family.,subunit:Polymer of 16 chains, four each of alpha, beta, gamma, and delta. Alpha and beta are regulatory chains, gamma is the catalytic chain, and delta is calmodulin.,tissue specificity:Muscle specific. Isoform 1 is predominant in vastus lateralis muscle. Isoform 2 predominates slightly in heart, and it predominates clearly in the other tissues tested.,
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