10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PHKG2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7233a

Product Information

Application	WB, IHC-P, E
Primary Accession	P15735
Other Accession	Q2KJ16
Reactivity	Human, Mouse
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3699
Calculated MW	46442
Antigen Region	41-71

Additional Information

Gene ID	5261
Other Names	Phosphorylase b kinase gamma catalytic chain, liver/testis isoform, PHK-gamma-LT, PHK-gamma-T, PSK-C3, Phosphorylase kinase subunit gamma-2, PHKG2
Target/Specificity	This PHKG2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 41-71 amino acids from the N-terminal region of human PHKG2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PHKG2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PHKG2
Function	Catalytic subunit of the phosphorylase b kinase (PHK), which mediates the

neural and hormonal regulation of glycogen breakdown (glycogenolysis) by phosphorylating and thereby activating glycogen phosphorylase. May regulate glycogeneolysis in the testis. In vitro, phosphorylates PYGM (PubMed:35549678).

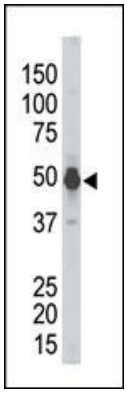
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway. The calcium/calmodulin-dependent kinase (CAMK) group consists of 75 kinases regulated by Ca2+/CaM and close relative family (CAMK, CAMKL, DAPK, MAPKAPK).

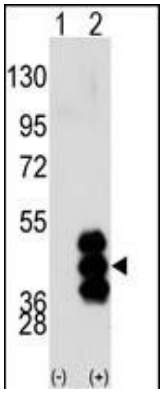
References

Burwinkel, B., et al., Hum. Mol. Genet. 7(1):149-154 (1998).
Maichele, A.J., et al., Nat. Genet. 14(3):337-340 (1996).
Whitmore, S.A., et al., Genomics 20(2):169-175 (1994).
Hanks, S.K., Mol. Endocrinol. 3(1):110-116 (1989).
Hanks, S.K., Proc. Natl. Acad. Sci. U.S.A. 84(2):388-392 (1987).

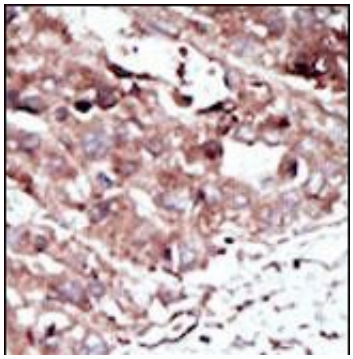
Images



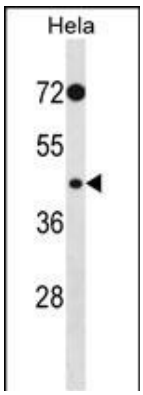
The anti-PHKG2 Pab (Cat. #AP7233a) is used in Western blot to detect PHKG2 in mouse kidney tissue lysate.



Western blot analysis of PHKG2 (arrow) using PHKG2 Antibody (N-term) (Cat.#AP7233a).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PHKG2 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



PHKG2 Antibody (E56) (Cat. #AP7233a) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the PHKG2 antibody detected the PHKG2 protein (arrow).