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PI 4 Kinase type 2 beta antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8033b

Product Information

Application	WB, E
Primary Accession	Q8TCG2
Other Accession	NP_060793
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1683
Calculated MW	54744
Antigen Region	305-336

Additional Information

Gene ID	55300
Other Names	Phosphatidylinositol 4-kinase type 2-beta, Phosphatidylinositol 4-kinase type II-beta, PI4KII-BETA, PI4K2B
Target/Specificity	This PI 4 Kinase type 2 beta antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 305-336 amino acids from the C-terminal region of human PI 4 Kinase type 2 beta.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	PI 4 Kinase type 2 beta antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PI4K2B
Function	Together with PI4K2A and the type III PI4Ks (PIK4CA and PIK4CB) it contributes to the overall PI4-kinase activity of the cell (PubMed:11923287, PubMed:12324459). This contribution may be especially significant in plasma

membrane, endosomal and Golgi compartments (PubMed:11923287, PubMed:12324459). The phosphorylation of phosphatidylinositol (PI) to PI4P is the first committed step in the generation of phosphatidylinositol 4,5-bisphosphate (PIP2), a precursor of the second messenger inositol 1,4,5-trisphosphate (InsP3) (PubMed:11923287, PubMed:12324459). Contributes to the production of InsP3 in stimulated cells and is likely to be involved in the regulation of vesicular trafficking.

Cellular Location Cytoplasm, cytosol. Golgi apparatus membrane; Peripheral membrane protein. Endoplasmic reticulum membrane. Cell membrane. Early endosome membrane. Note=Mainly cytosolic, association with membranes of the Golgi, endoplasmic and plasma membrane is stimulated by active RAC1 (PubMed:12324459). Association with early endosomes has not been confirmed (PubMed:11923287, PubMed:12324459).

Tissue Location Widely expressed..

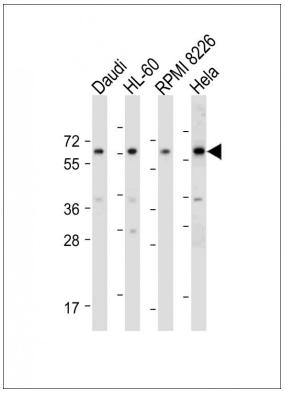
Background

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.

References

Wei, Y.J., et al., J. Biol. Chem. 277(48):46586-46593 (2002).
Mora, S., et al., J. Biol. Chem. 277(30):27494-27500 (2002).
Balla, A., et al., J. Biol. Chem. 277(22):20041-20050 (2002).

Images



All lanes : Anti-PI 4 Kinase type 2 beta antibody (C-term) at 1:2000 dilution Lane 1: Daudi whole cell lysate Lane 2: HL-60 whole cell lysate Lane 3: RPMI 8226 whole cell lysate Lane 4: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 55 kDa Blocking/Dilution buffer: 5% NFDM/TBST.