

Datasheet for ABIN7163185
anti-PIP5K1A antibody (AA 293-562)[Go to Product page](#)

3 Images

Overview

Quantity:	100 µL
Target:	PIP5K1A
Binding Specificity:	AA 293-562
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PIP5K1A antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant Human Phosphatidylinositol 4-phosphate 5-kinase type-1 alpha protein (293-562AA)
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	Antigen Affinity Purified

Target Details

Target:	PIP5K1A
Alternative Name:	PIP5K1A (PIP5K1A Products)
Background:	Background: Catalyzes the phosphorylation of phosphatidylinositol 4-phosphate (PtdIns4P) to

Target Details

form phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P₂). PtdIns(4,5)P₂ is involved in a variety of cellular processes and is the substrate to form phosphatidylinositol 3,4,5-trisphosphate (PtdIns(3,4,5)P₃), another second messenger. The majority of PtdIns(4,5)P₂ is thought to occur via type I phosphatidylinositol 4-phosphate 5-kinases given the abundance of PtdIns4P. Participates in a variety of cellular processes such as actin cytoskeleton organization, cell adhesion, migration and phagocytosis. Required for membrane ruffling formation, actin organization and focal adhesion formation during directional cell migration by controlling integrin-induced translocation of RAC1 to the plasma membrane. Together with PIP5K1C is required for phagocytosis, but they regulate different types of actin remodeling at sequential steps. Promotes particle ingestion by activating WAS that induces Arp2/3 dependent actin polymerization at the nascent phagocytic cup. Together with PIP5K1B is required after stimulation of G-protein coupled receptors for stable platelet adhesion. Plays a role during calcium-induced keratinocyte differentiation. Recruited to the plasma membrane by the E-cadherin/beta-catenin complex where it provides the substrate PtdIns(4,5)P₂ for the production of PtdIns(3,4,5)P₃, diacylglycerol and inositol 1,4,5-trisphosphate that mobilize internal calcium and drive keratinocyte differentiation. Together with PIP5K1C have a role during embryogenesis. Functions also in the nucleus where acts as an activator of TUT1 adenylyltransferase activity in nuclear speckles, thereby regulating mRNA polyadenylation of a select set of mRNAs.

Aliases: 68 kDa type I phosphatidylinositol-4-phosphate 5-kinase alpha antibody, Phosphatidylinositol 4 phosphate 5 kinase type I alpha antibody, Phosphatidylinositol-4-phosphate 5-kinase type I alpha antibody, Phosphatidylinositol-4-phosphate 5-kinase type-1 alpha antibody, PI4P5K 1a antibody, PI51A_HUMAN antibody, PIP5K A antibody, PIP5K1-alpha antibody, Pip5k1a antibody, PIP5K1alpha antibody, PtdIns(4)P-5-kinase 1 alpha antibody

UniProt: [Q99755](#)

Pathways: [PI3K-Akt Signaling](#), [Mitotic G1-G1/S Phases](#), [Inositol Metabolic Process](#), [DNA Replication](#), [Cell-Cell Junction Organization](#), [Synthesis of DNA](#)

Application Details

Application Notes: Recommended dilution: WB:1:1000-1:5000, IHC:1:20-1:200,

Restrictions: For Research Use only

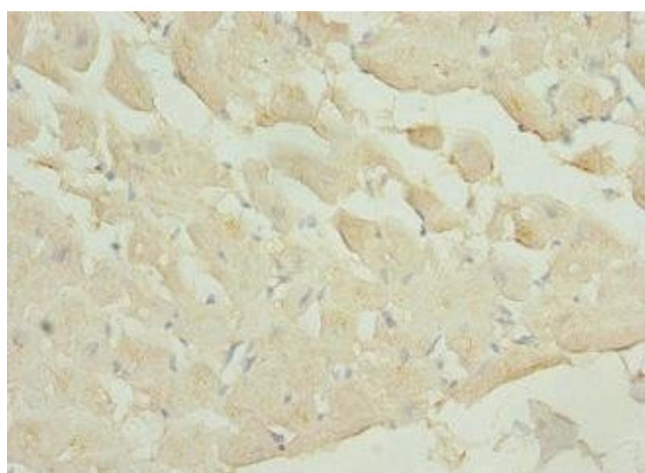
Handling

Format: Liquid

Handling

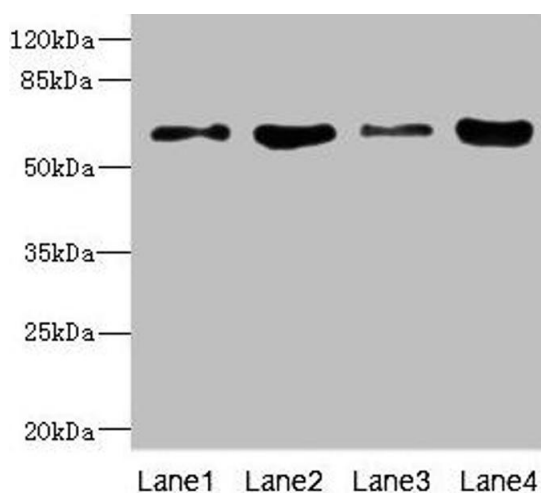
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



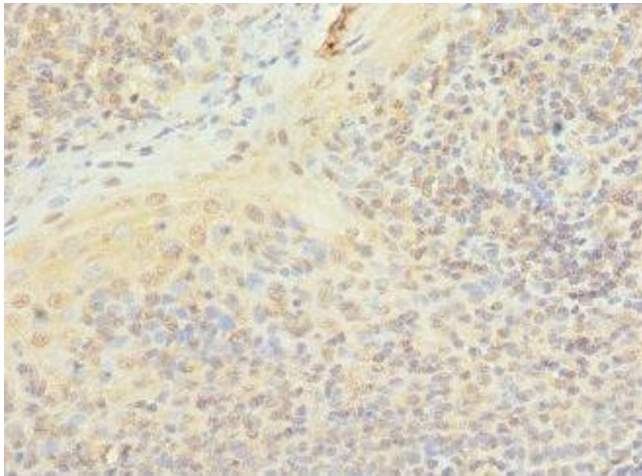
Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human heart tissue using ABIN7163185 at dilution of 1:100



Western Blotting

Image 2. Western blot All lanes: PIP5K1A antibody at 4.12 μ g/mL Lane 1: Hela whole cell lysate Lane 2: A431 whole cell lysate Lane 3: Mouse heart tissue Lane 4: Mouse kidney tissue Secondary Goat polyclonal to rabbit IgG at 1/10000 dilution Predicted band size: 63, 57, 62, 59 kDa Observed band size: 63 kDa



Immunohistochemistry

Image 3. Immunohistochemistry of paraffin-embedded human tonsil tissue using ABIN7163185 at dilution of 1:100