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PI3KR1 Antibody (N-term L11)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8023d

Specification

PI3KR1 Antibody (N-term L11) - Product Information

Application	**IF, WB, FC, IHC-P-Leica,E**
Primary Accession	P27986
Other Accession	Q63787, P26450, P23727
Reactivity	**Human, Rat**
Predicted	**Bovine, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**1-30**

PI3KR1 Antibody (N-term L11) - Additional Information

Gene ID 5295

Other Names
Phosphatidylinositol 3-kinase regulatory subunit alpha, PI3-kinase regulatory subunit alpha, PI3K regulatory subunit alpha, PtdIns-3-kinase regulatory subunit alpha, Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha, PI3-kinase subunit p85-alpha, PtdIns-3-kinase regulatory subunit p85-alpha, PIK3R1, GRB1

Target/Specificity
This PI3KR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PI3KR1.

Dilution
IF~~1:25
WB~~1:2000
FC~~1:25
IHC-P-Leica~~1:500
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is 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
PI3KR1 Antibody (N-term L11) is for research use only and not for use in diagnostic or therapeutic procedures.

PI3KR1 Antibody (N-term L11) - Protein Information

Name PIK3R1

Synonyms GRB1

Function Binds to activated (phosphorylated) protein-Tyr kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Necessary for the insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues. Plays an important role in signaling in response to FGFR1, FGFR2, FGFR3, FGFR4, KITLG/SCF, KIT, PDGFRA and PDGFRB. Likewise, plays a role in ITGB2 signaling (PubMed:17626883, PubMed:19805105, PubMed:7518429). Modulates the cellular response to ER stress by promoting nuclear translocation of XBP1 isoform 2 in a ER stress- and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement (PubMed:20348923).

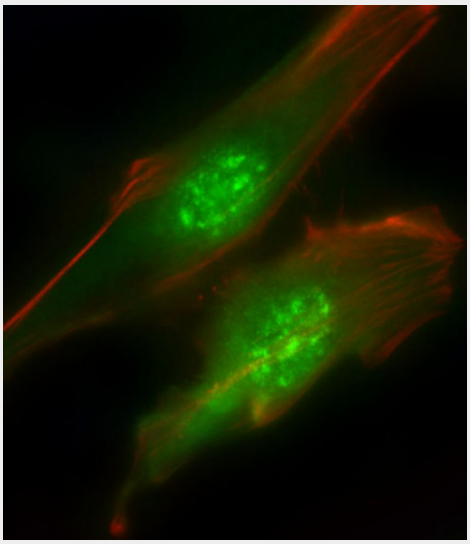
Tissue Location
Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level)

PI3KR1 Antibody (N-term L11) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PI3KR1 Antibody (N-term L11) - Images



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized

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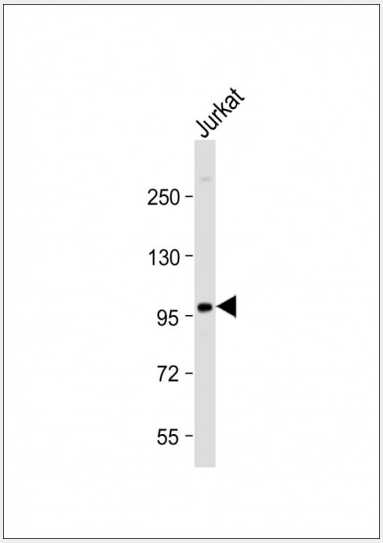
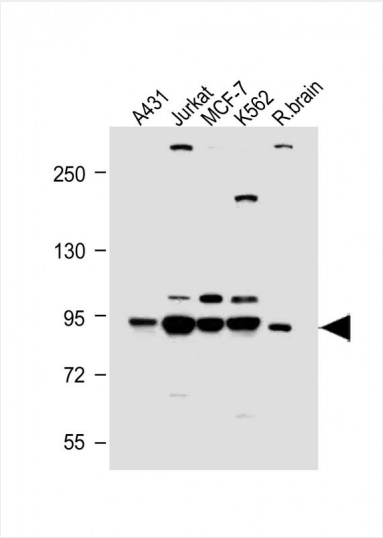
Hela cells labeling PIK3R1 with AP8023d at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image showing Nucleus and Weak Cytoplasm staining on Hela cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin(red). The nuclear counter stain is DAPI (blue).



Anti-PI3KR1 Antibody (N-term L11) at 1:2000 dilution + Jurkat 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 : 84 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-PI3KR1 Antibody (N-term L11) at 1:2000 dilution Lane 1: A431 whole cell lysate Lane 2: Jurkat whole cell lysate Lane 3: MCF-7 whole cell lysate Lane 4: K562 whole cell lysate Lane 5: Rat brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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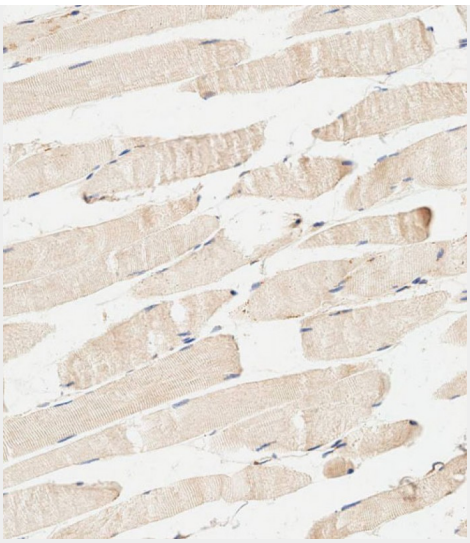
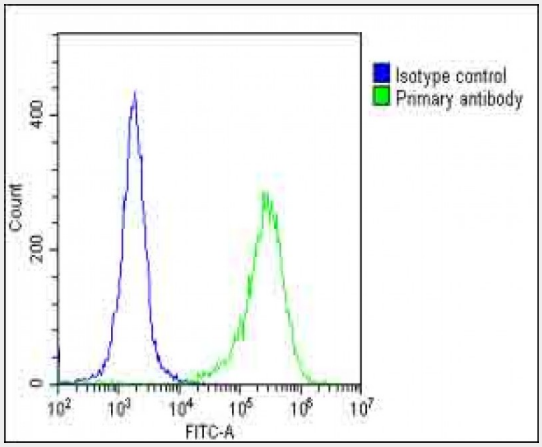


Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue using AP8023d performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Overlay histogram showing HeLa cells stained with AP8023d(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP8023d, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

PI3KR1 Antibody (N-term L11) - Background

Phosphatidylinositol 3-kinase phosphorylates the inositol ring of phosphatidylinositol at the 3-prime position. The enzyme comprises a 110 kD catalytic subunit and a regulatory subunit of either 85, 55, or 50 kD. This gene encodes the 85 kD regulatory subunit. Phosphatidylinositol 3-kinase plays an important role in the metabolic actions of insulin, and a mutation in this gene has been associated with insulin resistance.

PI3KR1 Antibody (N-term L11) - References

Kobayashi, H., et al., J. Biol. Chem. 279(8):6371-6379 (2004).

Liu, H., et al., J. Cell Biol. 164(4):603-612 (2004).
Sun, M., et al., J. Biol. Chem. 278(44):42992-43000 (2003).
Khan, N.A., et al., J. Neurovirol. 9(6):584-593 (2003).
Lee, H.Y., et al., J. Biol. Chem. 278(26):23630-23638 (2003).

PI3KR1 Antibody (N-term L11) - Citations

- Knockdown of AGR2 induces cellular senescence in prostate cancer cells.