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DATA SHEET

Rabbit Anti-PI3KCA Polyclonal: RC0152, RC0152RTU7

Intended Use: For Research Use Only

Description: Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns (Phosphatidylinositol), PtdIns4P (Phosphatidylinositol 4-phosphate) and PtdIns(4,5) P2 (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Participates in cellular signaling in response to various growth factors. Involved in the activation of AKT1 upon stimulation by receptor tyrosine kinases ligands such as EGF, insulin, IGF1, VEGFA and PDGF. Involved in signaling via insulin-receptor substrate (IRS) proteins. Essential in endothelial cell migration during vascular development through VEGFA signaling, possibly by regulating RhoA activity. Required for lymphatic vasculature development, possibly by binding to RAS and by activation by EGF and FGF2, but not by PDGF. Regulates invadopodia formation in breast cancer cells through the PDPK1-AKT1 pathway. Participates in cardiomyogenesis in embryonic stem cells through a AKT1 pathway.

Specifications:

Clone:	Polyclonal
Source:	Rabbit
Isotype:	IgG
Reactivity:	Human, mouse
Immunogen:	Synthesized peptide of internal region human PI 3-kinase p110α
Localization:	Cytoplasm, membrane bound
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, WB

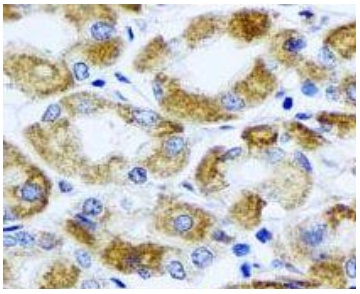
Package:

Description	Catalog No.	Size
PI3KCA Concentrated	RC0152	1 ml
PI3KCA Prediluted	RC0152RTU7	7 ml

IHC Procedure*:

Positive Control Tissue:	Breast carcinoma, cerebral cortex
Concentrated Dilution:	10-50
Pretreatment:	Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp:	Overnight @ 4°C
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human stomach stained with anti-PI3KCA using DAB

References:

1. 8-Cetylcoptisine, a new coptisine derivative, induces mitochondria-dependent apoptosis and G0/G1 cell cycle arrest in human A549 cells. Han B et al. Chem Biol Interact.;299:27-36, 2018.
2. Knockdown of AKT3 (PKBγ) and PI3KCA Suppresses Cell Viability and Proliferation and Induces the Apoptosis of Glioblastoma Multiforme T98G Cells. Paul-Samojedny, Monika, et al. BioMed Research International 2014, 2014.

Doc. 100-RC0152
Rev. B

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