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 PDK1, 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 PDK1-AKT1 pathway. Participates in cardiomyogenesis in embryonic stem cells through an AKT1 pathway. Participates in vasculogenesis in embryonic stem cells through PDK1 and protein kinase C pathway. Has also serine-protein kinase activity: phosphorylates PIK3R1 (p85alpha regulatory subunit), EIF4EBP1 and HRAS.

**Specifications:**
- **Clone:** Polyclonal
- **Source:** Rabbit
- **Isotype:** IgG
- **Reactivity:** Human, mouse, rat
- **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, IF, WB

<table>
<thead>
<tr>
<th>Description</th>
<th>Catalog No.</th>
<th>Size</th>
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<tbody>
<tr>
<td>PI3KCA Concentrated</td>
<td>RC0152</td>
<td>1 ml</td>
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<tr>
<td>PI3KCA Prediluted</td>
<td>RC0152RTU7</td>
<td>7 ml</td>
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**IHC Procedure**:  
- **Positive Control Tissue:** breast carcinoma, cerebral cortex
- **Concentrated Dilution:** 10-50
- **Pretreatment:** Citrate pH6.0 or EDTA pH8.0, 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.*

**References:**