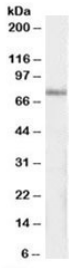
IP3KC Antibody / ITPKC Goat Polyclonal Antibody (R34013)

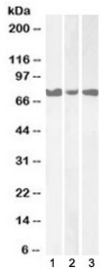
Catalog No.	Formulation	Size
R34013-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Species Reactivity	Human
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
UniProt	Q96DU7
Applications	Western blot: 1-3ug/ml ELISA (peptide) LOD: 1:2000
Limitations	This IP3KC Antibody / ITPKC Goat Polyclonal Antibody is available for research use only.



IP3KC Antibody by WB in human pancreas. Western blot analysis of human pancreas lysate using goat polyclonal IP3KC Antibody at 1 ug/ml. A distinct immunoreactive band is detected at approximately 75 kDa, consistent with the predicted molecular weight of inositol trisphosphate 3-kinase C. The blot shows minimal background staining and no prominent additional bands. This ITPKC Goat Polyclonal Antibody demonstrates detection of ITPKC at its expected molecular weight in human pancreatic tissue.



IP3KC Antibody by WB in human pancreas, heart and skeletal muscle. Western blot analysis of human tissue lysates using goat polyclonal IP3KC Antibody at 1 ug/ml. Lane 1: pancreas; lane 2: heart; lane 3: skeletal muscle. A distinct immunoreactive band is detected at approximately 75 kDa in all three samples, consistent with the calculated molecular weight of ITPKC. Band intensity is relatively uniform across the tissues, with minimal additional background staining. This ITPKC Goat Polyclonal Antibody demonstrates detection of inositol trisphosphate 3-kinase C at its predicted molecular weight.

Description

IP3KC Antibody recognizes inositol 1,4,5-trisphosphate 3-kinase C, an enzyme encoded by the ITPKC gene that regulates intracellular calcium signaling through the metabolism of inositol phosphates. Also known as IP3 kinase C, this protein belongs to the inositol trisphosphate 3-kinase family, which converts inositol 1,4,5-trisphosphate (IP3) into inositol 1,3,4,5-tetrakisphosphate (IP4). This reaction helps control intracellular IP3 concentrations and influences calcium release from the endoplasmic reticulum.

IP3 is an important second messenger generated when phospholipase C hydrolyzes phosphatidylinositol 4,5-bisphosphate following receptor activation. IP3 binds receptors on the endoplasmic reticulum, triggering calcium release into the cytoplasm. The resulting increase in intracellular calcium activates signaling proteins that regulate gene transcription, metabolism, secretion, and other cellular responses. By phosphorylating IP3, ITPKC contributes to the regulation of calcium signaling intensity and duration.

The ITPKC gene is located on human chromosome 19 and encodes a protein of approximately 683 amino acids with a calculated molecular weight near 75 kDa. Its conserved catalytic domain supports ATP-dependent phosphorylation of IP3. ITPKC is one of three major mammalian inositol trisphosphate 3-kinase isoforms, alongside ITPKA and ITPKB. Although these enzymes catalyze similar reactions, differences in their expression, localization, and regulatory properties contribute to distinct biological functions.

ITPKC has attracted particular interest because of its involvement in immune cell activation. Calcium-dependent signaling regulates the activity of calcineurin and nuclear factor of activated T cells (NFAT), a transcription factor family important for lymphocyte activation and inflammatory responses. By limiting IP3 availability, ITPKC can influence this signaling pathway. Genetic variants associated with reduced ITPKC expression have also been investigated as susceptibility factors for Kawasaki disease, an inflammatory vascular disorder that can affect the coronary arteries.

The ITPKC Goat Polyclonal Antibody provides an alternative antibody format for studying this enzyme. Its goat host distinguishes it from rabbit-derived ITPKC antibodies and may be useful when selecting primary antibodies for experiments involving multiple targets. NSJ Bioreagents offers this antibody for research into inositol phosphate metabolism, calcium homeostasis, and immune signaling. An IP3KC Antibody can support investigations of ITPKC expression and its relationship to calcium-dependent cellular regulation.

For an alternative antibody targeting the same protein, see our ITPKC Antibody.

Application Notes

Optimal dilution of the IP3KC Antibody / ITPKC Goat Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids ETERPKQKTEPDRSS were used as the immunogen for this IP3KC antibody.

Storage

Aliquot and store the IP3KC antibody at -20oC.

Alternate Names

Inositol Trisphosphate 3-Kinase C antibody, Inositol 1,4,5-Trisphosphate 3-Kinase C antibody, IP3 Kinase C antibody, ITPKC antibody

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