Human PI 3-Kinase C2β Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF7249

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PI 3-Kinase C2β in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human PI 3–Kinase C2β Ser2-Ser134 Accession # O00750
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

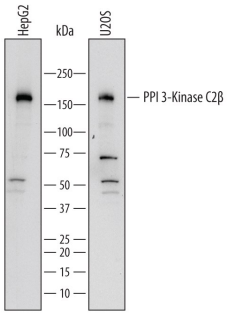
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

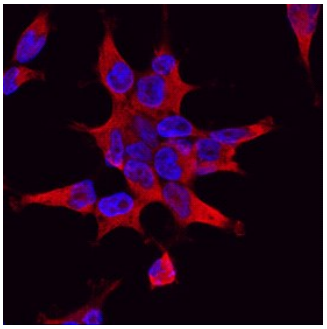
DATA

Western Blot



Detection of Human PI 3-Kinase C2β by Western Blot.
Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line and U2OS human osteosarcoma cell line. PVDF membrane was probed with 2 µg/mL of Goat Anti-Human PI 3-Kinase C2β Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7249) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for PI 3-Kinase C2β at approximately 185 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



PI 3-Kinase C2β in HEK293 Human Cell Line.
PI 3-Kinase C2β was detected in immersion fixed HEK293 human embryonic kidney cell line using Goat Anti-Human PI 3-Kinase C2β Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7249) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

PIK3C2β (Phosphadidylinositol-4-phosphate 3 kinase C2 domain-containing beta subunit; also HsC2-PI3K) is a 175-185 kDa member of the Class II PI3/PI4 kinase family of enzymes. It is widely expressed, being found in neurons, urinary transitional and columnar epithelium, and fibroblasts. PIK3C2β likely participates in growth factor, integrin and chemokine signaling by interacting with select cell membrane receptors, and appears to phosphorylate both phosphatidylinositol (PI) and PI 4-monophosphate upon activation. Human PIK3C2β is 1634 amino acids (aa) in length. It contains an N-terminal Pro-rich region (aa 156-174), two PI3K Class II domains (aa 622-794 and 1505-1627), a PI3K catalytic region (aa 987-1340), one PX domain (aa 1365-1481) and an NLS (aa 1555-1565). There are two potential C2β isoform variants. One shows a deletion of aa 850-877, while another contains a three aa insertion after Gln1016. Over aa 2-134, human PIK3C2β shares 91% aa identity with mouse PIK3C2β.

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