

PI 3-kinase p110 δ (29): sc-136032

BACKGROUND

Phosphatidylinositol 3-kinase (PI 3-kinase) is composed of p85 and p110 subunits. p85 lacks PI 3-kinase activity and acts as an adapter, coupling p110 to activated protein tyrosine kinase. Two forms of p85 have been described (p85 α and p85 β), each possessing one SH3 and two SH2 domains. Various p110 forms have been identified. p110 α and p110 β interact with p85 α , and p110 α has also been shown to interact with p85 β *in vitro*. It has been shown to bind p85 α and β , but it apparently does not phosphorylate these subunits. p110 δ has the capacity to autophosphorylate and results in the nearly complete inactivation of the lipid kinase activity. Interestingly, p110 γ does not interact with the p85 subunits and has been shown to be activated by α and β heterotrimeric G proteins. Two p110 δ isoforms have been identified and are widely expressed. Isoform 1 is expressed predominantly in leukocytes while isoform 2 is expressed in normal thymus, lung and spleen tissues.

REFERENCES

- Skolnik, E.Y., et al. 1991. Cloning of PI3 kinase-associated p85 utilizing a novel method for expression/cloning of target proteins for receptor tyrosine kinases. *Cell* 65: 83-90.
- Otsu, M., et al. 1991. Characterization of two 85 kDa proteins that associate with receptor tyrosine kinases, middle-T/pp60-src complexes and PI 3-kinase. *Cell* 65: 91-104.

CHROMOSOMAL LOCATION

Genetic locus: PIK3CD (human) mapping to 1p36.22; Pik3cd (mouse) mapping to 4 E2.

SOURCE

PI 3-kinase p110 δ (29) is a mouse monoclonal antibody raised against amino acids 73-90 of PI 3-kinase p110 δ of mouse origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 500 μ l of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

APPLICATIONS

PI 3-kinase p110 δ (29) is recommended for detection of PI 3-kinase p110 δ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for PI 3-kinase p110 δ siRNA (h): sc-39131, PI 3-kinase p110 δ siRNA (m): sc-39132, PI 3-kinase p110 δ shRNA Plasmid (h): sc-39131-SH, PI 3-kinase p110 δ shRNA Plasmid (m): sc-39132-SH, PI 3-kinase p110 δ shRNA (h) Lentiviral Particles: sc-39131-V and PI 3-kinase p110 δ shRNA (m) Lentiviral Particles: sc-39132-V.

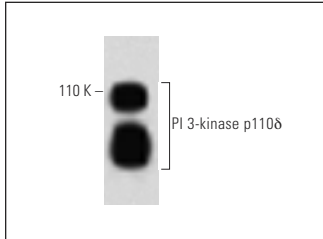
Molecular Weight of PI 3-kinase p110 δ isoforms: 119/33 kDa.

Positive Controls: rat brain extract: sc-2392, C32 whole cell lysate: sc-2205 or rat cerebellum extract: sc-2398.

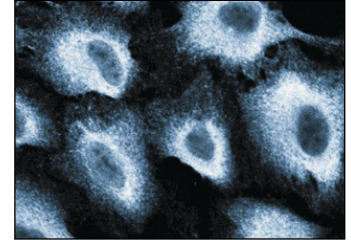
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



PI 3-kinase p110 δ (29): sc-136032. Western blot analysis of PI 3-kinase p110 δ expression in rat cerebrum tissue extract.



PI 3-kinase p110 δ (29): sc-136032. Immunofluorescence staining of human endothelial cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS


- Salm, F., et al. 2015. The phosphoinositide 3-Kinase p110 α isoform regulates leukemia inhibitory factor receptor expression via c-Myc and miR-125b to promote cell proliferation in medulloblastoma. *PLoS ONE* 10: e0123958.
- Gnanasundram, S.V., et al. 2017. PI3K δ activates E2F1 synthesis in response to mRNA translation stress. *Nat. Commun.* 8: 2103.
- Pedini, F., et al. 2019. Joint action of miR-126 and MAPK/PI3K inhibitors against metastatic melanoma. *Mol. Oncol.* 13: 1836-1854.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **PI 3-kinase p110 δ (A-8): sc-55589** for PI 3-kinase p110 δ antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.