**BACKGROUND**

Phosphatidylinositol 3-kinases (PI3Ks) phosphorylate the 3' OH position of the inositol ring of inositol lipids. Human PI 3-kinase C2α (PIK3C2A, C2-containing phosphatidylinositol kinase, p110α or CPK) contains a C-terminal calcium-binding and phospholipid-binding module known as the C2 domain. The cDNA sequence of PI 3-kinase C2α predicts a 1,686-amino acid protein that is 90% identical to mouse Cpk (term for the *Drosophila* homolog). Northern blot analysis reveals that PI 3-kinase C2α is expressed as an 8 kb mRNA in a wide variety of tissues. *In vitro*, the PI 3-kinase C2α enzyme can phosphorylate phosphatidylinositol and phosphatidylinositol-4-phosphate. The PI 3-kinase C2α gene contains 32 exons and spans approximately 76 kb.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PIK3C2A (human) mapping to 11p15.1; Pik3c2a (mouse) mapping to 7 F1.

**SOURCE**

PI 3-kinase C2α (17) is a mouse monoclonal antibody raised against PI 3-kinase C2α of mouse origin.

**PRODUCT**

Each vial contains 50 µg IgG1 in 0.5 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

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

**APPLICATIONS**

PI 3-kinase C2α (17) is recommended for detection of PI 3-kinase C2α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of PI 3-kinase C2α: 190 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or rat brain extract: sc-2392.

**DATA**

PI 3-kinase C2α (17): sc-136298. Western blot analysis of PI 3-kinase C2α expression in rat brain tissue extract.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

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