

PI 4-kinase II α (P-15): sc-165235

BACKGROUND

Phosphatidylinositol (PI) kinases participate in the first step in activating important cellular effectors, such as PIP2 (phosphatidylinositol bisphosphate) and PTEN. Unlike other PI-kinases, PI 4-kinase family members only phosphorylate phosphatidylinositols, are potently inhibited by adenosine and lack a transmembrane domain. Total PI 4-kinase activity is dependent upon PI 4-kinase β , PI 4-kinase α , PI 4-kinase II α and PI 4-kinase II β activities. PI 4-kinase II α (phosphatidylinositol 4-kinase type 2- α) is a 479 amino acid protein that cooperates with other PI 4-kinases to phosphorylate PI to PI4P at the D-4 position, which is the first committed step in producing PIP2. Highly expressed in heart, placenta, skeletal muscle, brain and kidney, PI 4-kinase II α can also be found at lower levels in thymus, small intestine and colon.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PI4K2A (human) mapping to 10q24.2; Pi4k2a (mouse) mapping to 19 C3.

SOURCE

PI 4-kinase II α (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PI 4-kinase II α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165235 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PI 4-kinase II α (P-15) is recommended for detection of PI 4-kinase II α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with PI 4-kinase II β .

PI 4-kinase II α (P-15) is also recommended for detection of PI 4-kinase II α in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PI 4-kinase II α siRNA (h): sc-90773, PI 4-kinase II α siRNA (m): sc-152243, PI 4-kinase II α shRNA Plasmid (h): sc-90773-SH, PI 4-kinase II α shRNA Plasmid (m): sc-152243-SH, PI 4-kinase II α shRNA (h) Lentiviral Particles: sc-90773-V and PI 4-kinase II α shRNA (m) Lentiviral Particles: sc-152243-V.

Molecular Weight of PI 4-kinase II α : 52 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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


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Try **PI 4-kinase II α (B-5): sc-390026**, our highly recommended monoclonal alternative to PI 4-kinase II α (P-15).