

PI 3-kinase p85 β (H-1): sc-515646

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 isoforms 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*. p110 δ expression is restricted to white blood cells. It has been shown to bind p85 α and p85 β , but it apparently does not phosphorylate these subunits. p110 δ seems to have the capacity to autophosphorylate. p110 γ does not interact with the p85 subunits. It has been shown to be activated by α and $\beta\gamma$ heterotrimeric G proteins.

CHROMOSOMAL LOCATION

Genetic locus: PIK3R2 (human) mapping to 19p13.11; Pik3r2 (mouse) mapping to 8 B3.3.

SOURCE

PI 3-kinase p85 β (H-1) is a mouse monoclonal antibody raised against amino acids 141-320 mapping within an internal region of PI 3-kinase p85 β of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PI 3-kinase p85 β (H-1) is available conjugated to agarose (sc-515646 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515646 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515646 PE), fluorescein (sc-515646 FITC), Alexa Fluor® 488 (sc-515646 AF488), Alexa Fluor® 546 (sc-515646 AF546), Alexa Fluor® 594 (sc-515646 AF594) or Alexa Fluor® 647 (sc-515646 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515646 AF680) or Alexa Fluor® 790 (sc-515646 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PI 3-kinase p85 β (H-1) is recommended for detection of PI 3-kinase p85 β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

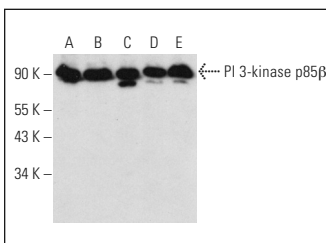
Suitable for use as control antibody for PI 3-kinase p85 β siRNA (h): sc-39125, PI 3-kinase p85 β siRNA (m): sc-39126, PI 3-kinase p85 β siRNA (r): sc-156022, PI 3-kinase p85 β shRNA Plasmid (h): sc-39125-SH, PI 3-kinase p85 β shRNA Plasmid (m): sc-39126-SH, PI 3-kinase p85 β shRNA Plasmid (r): sc-156022-SH, PI 3-kinase p85 β shRNA (h) Lentiviral Particles: sc-39125-V, PI 3-kinase p85 β shRNA (m) Lentiviral Particles: sc-39126-V and PI 3-kinase p85 β shRNA (r) Lentiviral Particles: sc-156022-V.

Molecular Weight of PI 3-kinase p85 β : 85 kDa.

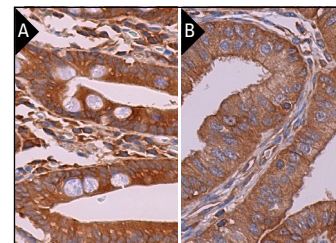
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PI 3-kinase p85 β (H-1): sc-515646. Western blot analysis of PI 3-kinase p85 β expression in K-562 (A), BJAB (B), 3T3-L1 (C), C2C12 (D) and Neuro-2A (E) whole cell lysates.



PI 3-kinase p85 β (H-1): sc-515646. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum (A) and human fallopian tube (B) tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Tavera-Montañez, C., et al. 2019. The classic metal-sensing transcription factor MTF1 promotes myogenesis in response to copper. *FASEB J.* 33: 14556-14574.
- Johnson, J., et al. 2020. Targeting PI3K and AMPK α signaling alone or in combination to enhance radiosensitivity of triple negative breast cancer. *Cells* 9: 1253.

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 for detailed protocols and support products.

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