**Background**

Phosphatidylinositol 3-kinase (PI3-kinase) is composed of (p85) and (p110) subunits. p85 lacks PI3-kinase activity and acts as an adapter, coupling p110 to activated tyrosine kinase. Two forms of p85 have been described (p85α and p85β), each possessing one SH3 and two SH2 domains. Various p110 isoforms have been identified. p110α interacts with p85α, and p110β has also been shown to interact with p85β. The p110α expression is restricted to white blood cells. It has been shown to bind p85α and β, but it apparently does not phosphorylate these subunits. p110γ does not interact with the p85 subunits. It has been shown to be activated by α and β heterotrimeric G proteins.

**Applications**

Pl 3-kinase p85α (C-1) is recommended for detection of PI3-kinase p85α of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg 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).

Pl 3-kinase p85α (C-1) is also recommended for detection of PI3-kinase p85α in additional species, including equine, bovine and avian.


Positive Controls: PI 3-kinase p85α (m): 293T Lysate: sc-122557, NIH/3T3 whole cell lysate: sc-22210 or Caki-1 cell lysate: sc-2224.

**References**


**Chromosomal Location**

Genetic locus: PIK3R1 (human) mapping to 5q13.1; Pik3r1 (mouse) mapping to 13 D1.

**Source**

Pl 3-kinase p85α (C-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 7-43 near the N-terminus of PI 3-kinase p85α of human origin.

**Product**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Pl 3-kinase p85α (C-1) is available conjugated to agarose (sc-376112 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376112 HRP), 200 µg/ml, for WB, IHC(PI) and ELISA; to either phycoerythrin (sc-376112 PE), fluorescein (sc-376112 FITC), Alexa Fluor® 488 (sc-376112 AF488), Alexa Fluor® 546 (sc-376112 AF546), Alexa Fluor® 594 (sc-376112 AF594) or Alexa Fluor® 647 (sc-376112 AF647), 200 µg/ml, for WB (RGB), IF, IHC(PI) and FCM; and to either Alexa Fluor® 680 (sc-376112 AF680) or Alexa Fluor® 790 (sc-376112 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376112 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**Storage**

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

**Select product citations**


**Research Use**

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