

# PI 3-kinase p110 $\alpha$ (H-201): sc-7174

## 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 $\alpha$  and p85 $\beta$ ), each possessing one SH3 and two SH2 domains. Various p110 isoforms have been identified. p110 $\alpha$  and p110 $\beta$  interact with p85 $\alpha$ , and p110 $\alpha$  has also been shown to interact with p85 $\beta$  *in vitro*. p110 $\delta$  expression is restricted to white blood cells. It has been shown to bind p85 $\alpha$  and  $\beta$ , but it apparently does not phosphorylate these subunits. p110 $\delta$  seems to have the capacity to autophosphorylate. p110 $\gamma$  does not interact with the p85 subunits. It has been shown to be activated by  $\alpha$  and  $\beta\gamma$  heterotrimeric G proteins.

## CHROMOSOMAL LOCATION

Genetic locus: PIK3CA (human) mapping to 3q26.32; Pik3ca (mouse) mapping to 3 A3.

## SOURCE

PI 3-kinase p110 $\alpha$  (H-201) is a rabbit polyclonal antibody raised against amino acids 189-390 mapping near the N-terminus of PI 3-kinase p110 $\alpha$  of human origin.

## PRODUCT

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

## APPLICATIONS

PI 3-kinase p110 $\alpha$  (H-201) is recommended for detection of PI 3-kinase p110 $\alpha$  of mouse, rat, human and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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).

PI 3-kinase p110 $\alpha$  (H-201) is also recommended for detection of PI 3-kinase p110 $\alpha$  in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PI 3-kinase p110 $\alpha$  siRNA (h): sc-39127, PI 3-kinase p110 $\alpha$  siRNA (m): sc-39128, PI 3-kinase p110 $\alpha$  shRNA Plasmid (h): sc-39127-SH, PI 3-kinase p110 $\alpha$  shRNA Plasmid (m): sc-39128-SH, PI 3-kinase p110 $\alpha$  shRNA (h) Lentiviral Particles: sc-39127-V and PI 3-kinase p110 $\alpha$  shRNA (m) Lentiviral Particles: sc-39128-V.

Molecular Weight of PI 3-kinase p110 $\alpha$ : 110 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or C32 whole cell lysate: sc-2205.

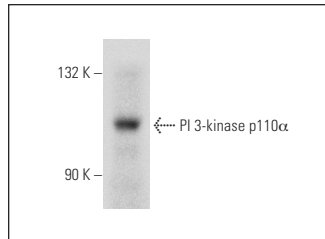
## STORAGE

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

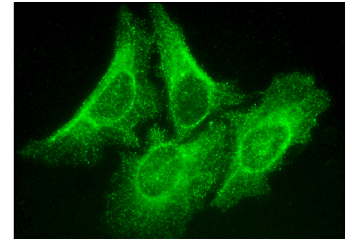
## RESEARCH USE

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

## DATA



PI 3-kinase p110 $\alpha$  (H-201): sc-7174. Western blot analysis of PI 3-kinase p110 $\alpha$  expression in Jurkat whole cell lysate.



PI 3-kinase p110 $\alpha$  (H-201): sc-7174. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

## SELECT PRODUCT CITATIONS

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Try **PI 3-kinase p110 $\alpha$  (4F3): sc-293172**, our highly recommended monoclonal alternative to PI 3-kinase p110 $\alpha$  (H-201).