

βPIX (23): sc-136035

BACKGROUND

The serine/threonine kinase, p21 activated kinase (PAK), is a downstream effector of the small GTPases Cdc42 and Rac. PAK associates with Nck, the p85 and p110 subunits of PI3-kinase and PIX (PAK-interacting exchange factor) in a focal complex. The binding of PIX is necessary for the localization and activation of PAK in the Cdc42 to Rac signaling pathway, and this binding occurs through the high affinity of the N-terminal SH3 domain of PIX for a conserved proline rich PAK sequence. PIX exists as two isoforms, α and β , and both are highly expressed in heart, muscle and thymus tissues of human and rat. α PIX is phosphorylated via PDGF and EphB2 receptor signaling pathways or through association with PI3-kinase. The α PIX isoform predominantly acts as a guanine nucleotide exchange factor (GEF) on Rac, which may mediate lamellipodia formation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ARHGEF7 (human) mapping to 13q34; Arhgef7 (mouse) mapping to 8 A1.1.

SOURCE

βPIX (23) is a mouse monoclonal antibody raised against amino acids 351-453 of βPIX of rat 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

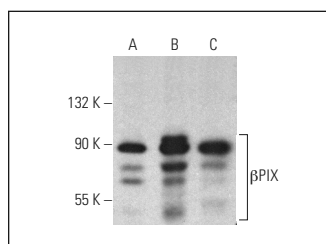
βPIX (23) is recommended for detection of βPIX of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for βPIX siRNA (h): sc-39148, βPIX siRNA (m): sc-39149, βPIX shRNA Plasmid (h): sc-39148-SH, βPIX shRNA Plasmid (m): sc-39149-SH, βPIX shRNA (h) Lentiviral Particles: sc-39148-V and βPIX shRNA (m) Lentiviral Particles: sc-39149-V.

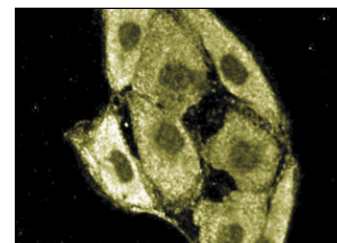
Molecular Weight of βPIX: 85 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, PC-12 cell lysate: sc-2250 or NIH/3T3 whole cell lysate: sc-2210.

DATA



βPIX (23): sc-136035. Western blot analysis of βPIX expression in NIH/3T3 (A), RAW 264.7 (B) and PC-12 (C) whole cell lysates.



βPIX (23): sc-136035. Immunofluorescence staining of MDCK cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

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RESEARCH USE

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

PROTOCOLS

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