SANTA CRUZ BIOTECHNOLOGY, INC.

PAL (E-9): sc-514172

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Src homology 3 (SH3) region is a small protein domain of approximately 60 amino acids present in a large group of proteins. In general, it exists in association with catalytic domains, as in the nonreceptor protein-tyrosine kinases and phospholipase C-g, within structural proteins, such as spectrin or myosin, and in small adapter proteins, such as Crk and GRB2. SH3 domains are often accompanied by SH2 domains of 100 amino acids that bind to tyrosine-phosphorylated regions of target proteins, frequently linking activated growth factors to putative signal transduction proteins. Deletion or mutation of SH3 domains generally activates the transforming potential of nonreceptor tyrosine kinases, suggesting that SH3 mediates negative regulation of an intrinsic transforming activity. PAL (protein expressed in activated lymphocytes) is an SH2 domain-binding adapter protein that is expressed in actively dividing and proliferating cells, suggesting a role for PAL in governing cell cycle progression.

REFERENCES

1. Ullrich, A. and Schlessinger, J. 1990. Signal transduction by receptors with tyrosine kinase activity. Cell 61: 203-212.
2. Ellis, C., et al. 1990. Phosphorylation of GAP and GAP-associated proteins bytransforming and mitogenic tyrosine kinases. Nature 343: 377-381.
3. Morrison, D.K., et al. 1990. Platelet-derived growth factor (PDGF)-dependent association of phospholipase Cγ with the PDGF receptor signaling complex. Mol. Cell. Biol. 10: 2359-2366.
4. Cantley, L.C., et al. 1991. Oncogenes and signal transduction. Cell 64: 281-302.

CHROMOSOMAL LOCATION

Genetic locus: Shcbp1 (mouse) mapping to 8 A1.1.

SOURCE

PAL (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-23 at the N-terminus of PAL of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PAL (E-9) is available conjugated to agarose (sc-514172 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514172 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514172 PE), fluorescein (sc-514172 FITC), Alexa Fluor® 488 (sc-514172 AF488), Alexa Fluor® 546 (sc-514172 AF546), Alexa Fluor® 594 (sc-514172 AF594) or Alexa Fluor® 647 (sc-514172 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514172 AF680) or Alexa Fluor® 790 (sc-514172 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514172 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PAL (E-9) is recommended for detection of PAL of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PAL siRNA (m): sc-40970, PAL shRNA Plasmid (m): sc-40970-SH and PAL shRNA (m) Lentiviral Particles: sc-40970-V.

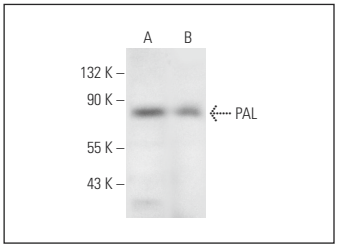
Molecular Weight of PAL: 75 kDa.

Positive Controls: WR19L cell lysate: sc-3805, SP2/0 whole cell lysate: sc-364795 or BYDP whole cell lysate: sc-364368.

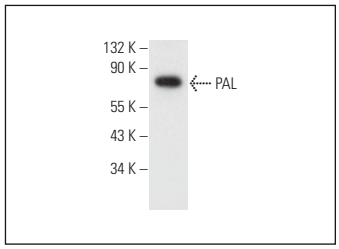
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PAL (E-9): sc-514172. Western blot analysis of PAL expression in SP2/0 (**A**) and BYDP (**B**) whole cell lysates.



PAL (E-9): sc-514172. Western blot analysis of PAL expression in WR19L whole cell lysate.

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.