

p130 Cas (SPM302): sc-65517

BACKGROUND

p130 represents one of several known substrates for v-Crk encoded p47. p130 Cas (for Crk-associated substrate) exhibits a high level of tyrosine phosphorylation and is tightly associated with v-Crk, suggesting a role in v-Crk-mediated cell signaling. The molecular cloning of Cas p130 has shown it to represent a novel SH3 containing signaling molecule with a cluster of multiple putative SH2-binding motifs for v-Crk. By immunoprecipitation analysis, p130 Cas has been shown to be highly phosphorylated at tyrosine residues subsequent to either v-Src p60 or v-Crk-mediated transformation and to form stable complexes with both of these transforming proteins. p130 Cas behaves as an extremely potent substrate for protein tyrosine kinases and has been reported to relocate from the cytoplasm to cell membrane upon tyrosine phosphorylation. One proposed model is that the SH2 domain of v-Crk functions to activate c-Src kinase, which in turn phosphorylates p130 Cas.

REFERENCES

1. Matsuda, M., et al. 1990. Binding of transforming protein, p47gag-Crk, to a broad range of phosphotyrosine-containing proteins. *Science* 248: 1537-1539.
2. Kanner, S.B., et al. 1990. Monoclonal antibodies to individual tyrosine-phosphorylated protein substrates of oncogene-encoded tyrosine kinases. *Proc. Natl. Acad. Sci. USA* 87: 3328-3332.
3. Kanner, S.B., et al. 1991. The SH2 and SH3 domains of pp60src direct stable association with tyrosine phosphorylated proteins p130 and p110. *EMBO J.* 10: 1689-1698.
4. Matsuda, M., et al. 1991. Identification of the v-Crk oncogene product sufficient for association with phosphotyrosine-containing proteins. *Mol. Cell. Biol.* 11: 1607-1613.
5. Birge, R.B., et al. 1992. Tyrosine-phosphorylated epidermal growth factor receptor and cellular p130 provide high affinity binding substrates to analyze Crk-phosphotyrosine-dependent interactions *in vitro*. *J. Biol. Chem.* 267: 10588-10595.

CHROMOSOMAL LOCATION

Genetic locus: BCAR1 (human) mapping to 16q23.1; Bcar1 (mouse) mapping to 8 E1.

SOURCE

p130 Cas (SPM302) is a mouse monoclonal antibody raised against recombinant p130 Cas of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of 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

p130 Cas (SPM302) is recommended for detection of p130 Cas of mouse, rat and human 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for p130 Cas siRNA (h): sc-36141, p130 Cas siRNA (m): sc-36142, p130 Cas siRNA (r): sc-155989, p130 Cas shRNA Plasmid (h): sc-36141-SH, p130 Cas shRNA Plasmid (m): sc-36142-SH, p130 Cas shRNA Plasmid (r): sc-155989-SH, p130 Cas shRNA (h) Lentiviral Particles: sc-36141-V, p130 Cas shRNA (m) Lentiviral Particles: sc-36142-V and p130 Cas shRNA (r) Lentiviral Particles: sc-155989-V.

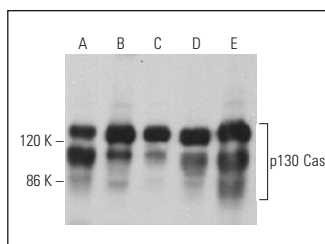
Molecular Weight of p130 Cas: 130 kDa.

Positive Controls: p130 Cas (h): 293T Lysate: sc-177673, KNRK whole cell lysate: sc-2214 or NIH/3T3 whole cell lysate: sc-2210.

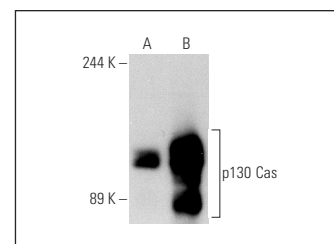
RECOMMENDED SUPPORT REAGENTS

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, TBS Blotto A Blocking Reagent: sc-2333 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



p130 Cas (SPM302): sc-65517. Western blot analysis of p130 Cas expression in SK-BR-3 (A), NIH/3T3 (B), 3T3-L1 (C), KNRK (D) and A-10 (E) whole cell lysates.



p130 Cas (SPM302): sc-65517. Western blot analysis of p130 Cas expression in non-transfected: sc-117752 (A) and human p130 Cas transfected: sc-177673 (B) 293T whole cell lysates.

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.