

p130 Cas (C-2): sc-515479

BACKGROUND

A protein designated p130 Cas (for Crk-associated substrate), represents one of several known substrates for v-Crk encoded p47. p130 Cas (also designated breast cancer anti-estrogen resistance protein 1 or Cas scaffolding protein family member 1), exhibits a high level of tyrosine phosphorylation and is tightly associated with v-Crk, suggesting a role in v-Crk-mediated cell signaling. p130 Cas is a novel SH3-containing signaling molecule with a cluster of multiple putative SH2-binding motifs for v-Crk. Two p130 Cas related proteins, designated Sin (Src interacting or signal integrating protein, also designated Cas3 or HEFS) and Cas-L (human enhancer of filamentation 1, HEF1 or Cas3), have also been identified. Sin contains SH2/SH3 domains and has been shown to activate Src. Cas-L contains an SH3 domain and has been shown to be a docking protein that serves as a substrate for phosphorylation by several oncogenic tyrosine kinases.

REFERENCES

1. Matusda, M., et al. 1991. Identification of domain of the v-crk oncogene product sufficient for association with phosphotyrosine-containing proteins. *Mol. Cell. Biol.* 11: 1607-1613.
2. 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.
3. 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.
4. Matsuda, M., et al. 1992. Two species of human CRK cDNA encode proteins with distinct biological activities. *Mol. Cell. Biol.* 12: 3482-3489.
5. Sakai, R., et al. 1994. A novel signaling molecule, p130, forms stable complexes *in vivo* with v-Crk and v-Src in a tyrosine phosphorylation-dependent manner. *EMBO J.* 13: 3748-3756.

CHROMOSOMAL LOCATION

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

SOURCE

p130 Cas (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 8-28 near the N-terminus of p130 Cas of rat 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.

Blocking peptide available for competition studies, sc-515479 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

p130 Cas (C-2) is recommended for detection of p130 Cas 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

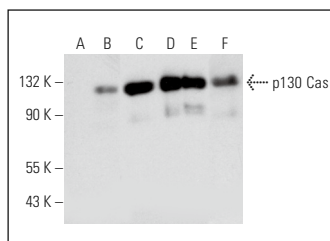
Molecular Weight of p130 Cas: 130 kDa.

Positive Controls: p130 Cas (h): 293T Lysate: sc-177673, A-10 cell lysate: sc-3806 or PC-12 cell lysate: sc-2250.

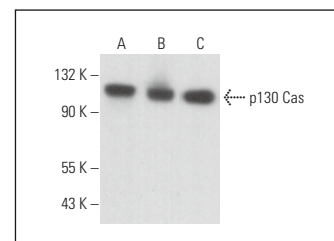
RECOMMENDED SUPPORT REAGENTS

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



p130 Cas (C-2): sc-515479. Western blot analysis of p130 Cas expression in non-transfected 293T: sc-117752 (A), human p130 Cas transfected 293T: sc-177673 (B), 3611-RF (C), KNRK (D), A-10 (E) and PC-12 (F) whole cell lysates.



p130 Cas (C-2): sc-515479. Western blot analysis of p130 Cas expression in HeLa (A), ZR-75-1 (B) and NIH/3T3 (C) whole cell lysates.

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.