

p130 Cas (C-20): sc-860

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.

CHROMOSOMAL LOCATION

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

SOURCE

p130 Cas (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of p130 Cas of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p130 Cas (C-20) is available conjugated to agarose (sc-860 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-860 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p130 Cas (C-20) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p130 Cas (C-20) is also recommended for detection of p130 Cas in additional species, including equine, canine and bovine.

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

Molecular Weight of p130 Cas: 130 kDa.

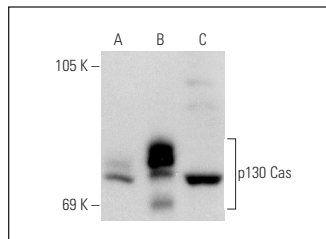
RESEARCH USE

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

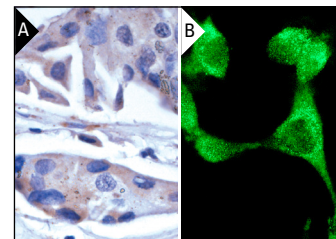
STORAGE

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

DATA



p130 Cas (C-20): sc-860. Western blot analysis of p130 Cas expression in non-transfected 293T: sc-117752 (A), human p130 Cas transfected 293T: sc-177673 (B) and Jurkat (C) whole cell lysates.



p130 Cas (C-20): sc-860. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor (A). Immunofluorescence staining of methanol-fixed 3611-RF cells showing cytoplasmic staining (B).

SELECT PRODUCT CITATIONS

1. Astier, A., et al. 1997. The related adhesion focal tyrosine kinase differentially phosphorylates p130 Cas and the Cas-like protein, p105-HEF1. *J. Biol. Chem.* 272: 19719-19724.
2. Thelemann, A., et al. 2005. Phosphotyrosine signaling networks in epidermal growth factor receptor overexpressing squamous carcinoma cells. *Mol. Cell. Proteomics* 4: 356-376.
3. Chang, L.C., et al. 2005. Differential effect of the focal adhesion kinase Y397F mutant on v-Src-stimulated cell invasion and tumor growth. *J. Biomed. Sci.* 12: 571-585.
4. Hu, B., et al. 2006. Angiopoietin 2 induces glioma cell invasion by stimulating matrix metalloprotease 2 expression through the $\alpha v \beta 1$ integrin and focal adhesion kinase signaling pathway. *Cancer Res.* 66: 775-783.
5. Gao, B.B., et al. 2006. Angiotensin II stimulates phosphorylation of an ectodomain-truncated platelet-derived growth factor receptor- β and its binding to class IA PI3K in vascular smooth muscle cells. *Biochem. J.* 397: 337-344.
6. Zheng, Y., et al. 2009. FAK phosphorylation by ERK primes ras-induced tyrosine dephosphorylation of FAK mediated by PIN1 and PTP-PEST. *Mol. Cell* 35: 11-25.
7. Rhee, I., et al. 2013. Macrophage fusion is controlled by the cytoplasmic protein tyrosine phosphatase PTP-PEST/PTPN12. *Mol. Cell. Biol.* 33: 2458-2469.

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