SANTA CRUZ BIOTECHNOLOGY, INC.

p130 Cas (35B.1A4): sc-20029

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 p130 Cas 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 (35B.1A4) is a mouse monoclonal antibody raised against recombinant p130 Cas of human 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.

p130 Cas (35B.1A4) is available conjugated to agarose (sc-20029 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20029 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-20029 PE), fluorescein (sc-20029 FITC), Alexa Fluor® 488 (sc-20029 AF488), Alexa Fluor® 546 (sc-20029 AF546), Alexa Fluor® 594 (sc-20029 AF594) or Alexa Fluor® 647 (sc-20029 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-20029 AF680) or Alexa Fluor® 790 (sc-20029 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

p130 Cas (35B.1A4) 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).

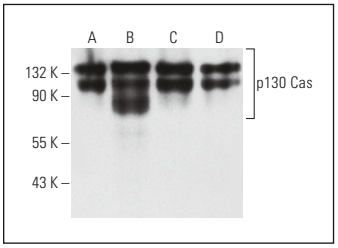
Suitable for use as control antibody for p130 Cas siRNA (h): sc-36141, p130 Cas siRNA (m): sc-36142, p130 Cas siRNA (r): sc-155989, p130 Cas shRNA Plasmid (h): sc-36141-SH, p130 Cas shRNA Plasmid (m): sc-36142-SH, p130 Cas shRNA Plasmid (r): sc-155989-SH, p130 Cas shRNA (h) Lentiviral Particles: sc-36141-V,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

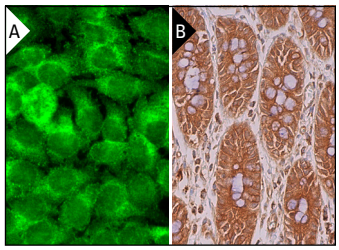
STORAGE

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

DATA



p130 Cas (35B.1A4): sc-20029. Western blot analysis of p130 Cas expression in ZR-75-1 (**A**), SK-BR-3 (**B**), T-47D (**C**) and BT-20 (**D**) whole cell lysates.



p130 Cas (35B.1A4): sc-20029. Immunofluorescence staining of formalin-fixed HeLa cells showing cytoplasmic, membrane and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Near, R.I., et al. 2007. AND-34/BCAR3 differs from other NSP homologs in induction of anti-estrogen resistance, cyclin D1 promoter activation and altered breast cancer cell morphology. J. Cell. Physiol. 212: 655-665.
2. Maia, V., et al. 2013. C3G forms complexes with Bcr-Abl and p38α MAPK at the focal adhesions in chronic myeloid leukemia cells: implication in the regulation of leukemic cell adhesion. Cell Commun. Signal. 11: 9.
3. Ward, J.D., et al. 2015. LPA-mediated migration of ovarian cancer cells involves translocalization of $G_{\alpha\ i2}$ to invadopodia and association with Src and β-pix. Cancer Lett. 356: 382-391.
4. Clausen, T.M., et al. 2016. Oncofetal chondroitin sulfate glycosaminoglycans are key players in integrin signaling and tumor cell motility. Mol. Cancer Res. 14: 1288-1299.
5. Yang, C., et al. 2018. Recent advances in the application of Vitamin E TPGS for drug delivery. Theranostics 8: 464-485.
6. Mao, C.G., et al. 2020. BCAR1 promotes proliferation and cell growth in lung adenocarcinoma via upregulation of POLR2A. Thorac. Cancer 11: 3326-3336.
7. Antoniades, I., et al. 2021. FAK displacement from focal adhesions: a promising strategy to target processes implicated in cancer progression and metastasis. Cell Commun. Signal. 19: 3.
8. Lin, T.Y., et al. 2022. EGFR mutation-harboring lung cancer cells produce CLEC11A with endothelial trophic and tumor-promoting activities. Cancers 14: 1356.

RESEARCH USE

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