SANTA CRUZ BIOTECHNOLOGY, INC.

Sin (13): sc-136329

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 filamentatin 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. 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.
2. 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.
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.
6. Alexandropoulos, K. and Baltimore, D. 1996. Coordinate activation of c-Src by SH3- and SH2-binding sites on a novel p130 Cas-related protein, Sin. Genes Dev. 10: 1341-1355.

CHROMOSOMAL LOCATION

Genetic locus: EFS (human) mapping to 14q11.2; Efs (mouse) mapping to 14 C3.

SOURCE

Sin (13) is a mouse monoclonal antibody raised against amino acids 142-258 of Sin 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.

Sin (13) is available conjugated to agarose (sc-136329 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-136329 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

APPLICATIONS

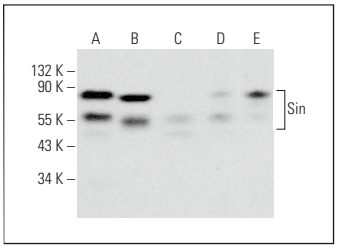
Sin (13) is recommended for detection of Sin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Sin siRNA (h): sc-40796, Sin siRNA (m): sc-40797, Sin shRNA Plasmid (h): sc-40796-SH, Sin shRNA Plasmid (m): sc-40797-SH, Sin shRNA (h) Lentiviral Particles: sc-40796-V and Sin shRNA (m) Lentiviral Particles: sc-40797-V.

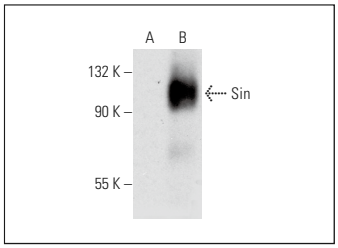
Molecular Weight of Sin: 70 kDa.

Positive Controls: Sin (m): 293T Lysate: sc-123554, PC-12 cell lysate: sc-2250 or SH-SY5Y cell lysate: sc-3812.

DATA



Sin (13): sc-136329. Western blot analysis of Sin expression in SH-SY5Y (**A**), AN3 CA (**B**), C6 (**C**), PC-12 (**D**) and NIH/3T3 (**E**) whole cell lysates.



Sin (13): sc-136329. Western blot analysis of Sin expression in non-transfected in sc-117752 (**A**) and mouse Sin transfected: sc-123554 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sun, Z., et al. 2020. NHE1 mediates 5-Fu resistance in gastric cancer via STAT3 signaling pathway. Onco Targets Ther. 13: 8521-8532.

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.