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. 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 pp60 Src direct stable association with tyrosine phosphorylated proteins p130 and p110. EMBO J. 10: 1689-1698.
3. Matsuda, M., et al. 1992. Two species of human Crk cDNA encode proteins with distinct biological activities. Mol. Cell. Biol. 12: 3482-3489.
4. 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.
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 p130Cas-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.

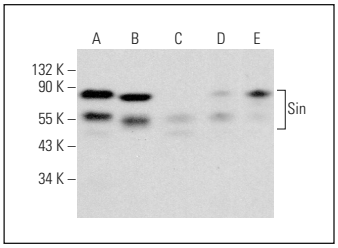
Molecular Weight of Sin: 70 kDa.

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

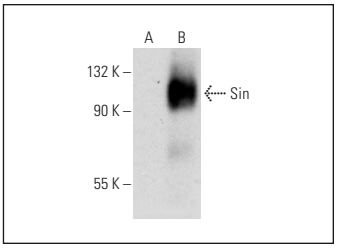
RECOMMENDED SUPPORT REAGENTS

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



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.

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.