SANTA CRUZ BIOTECHNOLOGY, INC.

Pinch-1 (A-1): sc-393133

BACKGROUND

Pinch, also designated particularly interesting new Cys-His protein or NY-REN-48, is a focal adhesion protein that is a component of the ILK-Pinch complex. This complex is a major part of the growth factor and integrin signaling pathway. Pinch is involved in cell differentiation, proliferation and survival by acting as an effector of integrin and growth factor signaling. It is a cytoplasmic protein expressed in most tissues and consists of five LIM domains, a nuclear localization signal and a nuclear export signal. The Pinch-1/ILK complex is regulated by a Pinch-1 related protein PINCH-2, which also forms a complex with ILK.

CHROMOSOMAL LOCATION

Genetic locus: LIMS1 (human) mapping to 2q12.3; Lims1 (mouse) mapping to 10 B4.

SOURCE

Pinch-1 (A-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 132-169 within an internal region of Pinch-1 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.

Pinch-1 (A-1) is available conjugated to agarose (sc-393133 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393133 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393133 PE), fluorescein (sc-393133 FITC), Alexa Fluor® 488 (sc-393133 AF488), Alexa Fluor® 546 (sc-393133 AF546), Alexa Fluor® 594 (sc-393133 AF594) or Alexa Fluor® 647 (sc-393133 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393133 AF680) or Alexa Fluor® 790 (sc-393133 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393133 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Pinch-1 (A-1) is recommended for detection of Pinch-1 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).

Pinch-1 (A-1) is also recommended for detection of Pinch-1 in additional species, including canine, bovine, porcine and avian.

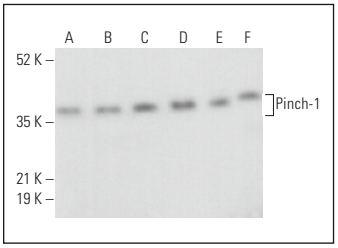
Suitable for use as control antibody for Pinch-1 siRNA (h): sc-61355, Pinch-1 siRNA (m): sc-61356, Pinch-1 shRNA Plasmid (h): sc-61355-SH, Pinch-1 shRNA Plasmid (m): sc-61356-SH, Pinch-1 shRNA (h) Lentiviral Particles: sc-61355-V and Pinch-1 shRNA (m) Lentiviral Particles: sc-61356-V.

Molecular Weight of Pinch-1: 37 kDa.

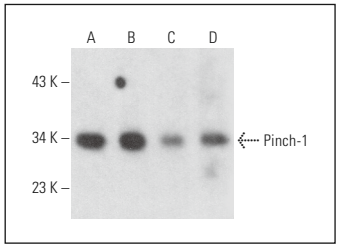
STORAGE

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

DATA



Pinch-1 (A-1): sc-393133. Western blot analysis of Pinch-1 expression in T98G (**A**), K-562 (**B**), HeLa (**C**), Saos-2 (**D**), RAW 264.7 (**E**) and F9 (**F**) whole cell lysates. Detection reagent used: m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM.



Pinch-1 (A-1): sc-393133. Western blot analysis of Pinch-1 expression in EOC 20 (**A**), RAW 264.7 (**B**) and KNRK (**C**) whole cell lysates and rat testis tissue extract (**D**).

SELECT PRODUCT CITATIONS

1. Li, W., et al. 2018. Overexpression of particularly interesting new Cys-His rich protein (Pinch) is a risk factor for growth of unruptured intracranial aneurysms. Int. J. Clin. Exp. Pathol. 11: 2636-2641.
2. Su, J., et al. 2021. A mechanoresponsive Pinch-1-Notch2 interaction regulates smooth muscle differentiation of human placental mesenchymal stem cells. Stem Cells 39: 650-668.
3. Cui, C., et al. 2021. Pinch-1 promotes Δ^1-pyrroline-5-carboxylate synthase expression and contributes to proline metabolic reprogramming in lung adenocarcinoma. Amino Acids 53: 1875-1890.
4. Guo, C., et al. 2022. CHILKBP protects against podocyte injury by preserving ZO-1 expression. Cell. Mol. Life Sci. 80: 18.
5. Ni, W.J., et al. 2024. HIF-1α and adaptor protein LIM and senescent cell antigen-like domains protein 1 axis promotes tubulointerstitial fibrosis by interacting with vimentin in angiotensin II-induced hypertension. Br. J. Pharmacol. 181: 3098-3117.

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.