SANTA CRUZ BIOTECHNOLOGY, INC.

Pinch-1 (B-8): sc-393151

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Zhang, Y., et al. 2002. Characterization of PINCH-2, a new focal adhesion Pinch-1-ILK interaction, cell spreading, and migration. J. Biol. Chem. 277: 38328-38338.
2. Fukuda, T., et al. 2003. Pinch-1 is an obligate partner of integrin-linked kinase (ILK) functioning in cell shape modulation, motility, and survival. J. Biol. Chem. 278: 51324-51333.
3. Wu, C. 2005. Pinch, N(i)ck and the ILK: network wiring at cell-matrix adhesions. Trends Cell Biol. 15: 460-466.
4. Vaynberg, J., et al. 2005. Structure of an ultraweak protein-protein complex and its crucial role in regulation of cell morphology and motility. Mol. Cell 17: 513-523.
5. Yang, Y., et al. 2005. Formation and phosphorylation of the Pinch-1-integrin linked kinase-α-parvin complex are important for regulation of renal glomerular podocyte adhesion, architecture, and survival. J. Am. Soc. Nephrol. 16: 1966-1976.
6. Xu, Z., et al. 2005. Molecular dissection of Pinch-1 reveals a mechanism of coupling and uncoupling of cell shape modulation and survival. J. Biol. Chem. 280: 27631-27637.
7. Martinsen, B.J., et al. 2006. Pinch-1 expression during early avian embryogenesis: implications for neural crest and heart development. Dev. Dyn. 235: 152-162.
8. Jung, K.Y., et al. 2007. TGF-β1 regulates the Pinch-1-integrin-linked kinase-α-parvin complex in glomerular cells. J. Am. Soc. Nephrol. 18: 66-73.

SOURCE

Pinch-1 (B-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 12-41 near the N-terminus 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.

Blocking peptide available for competition studies, sc-393151 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Pinch-1 (B-8) is recommended for detection of Pinch-1 and Pinch-2 of mouse, rat and human origin, and Pinch-3 of 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 (B-8) is also recommended for detection of Pinch-1, Pinch-2 and Pinch-3 in additional species, including equine, canine, bovine, porcine and avian.

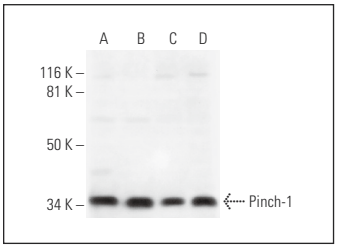
Molecular Weight of Pinch-1: 37 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or COLO 320DM cell lysate: sc-2226.

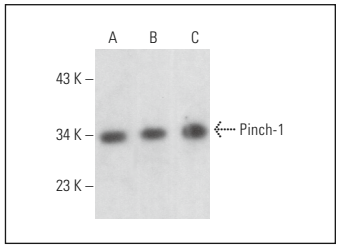
RECOMMENDED SUPPORT REAGENTS

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



Pinch-1 (B-8): sc-393151. Western blot analysis of Pinch-1 expression in T98G (**A**), COLO 320DM (**B**), K-562 (**C**) and HeLa (**D**) whole cell lysates.



Pinch-1 (B-8): sc-393151. Western blot analysis of Pinch-1 expression in SW480 (**A**), EOC 20 (**B**) and RAW 264.7 (**C**) 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.