SANTA CRUZ BIOTECHNOLOGY, INC.

Pinch-1 (49): sc-136299

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.

CHROMOSOMAL LOCATION

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

SOURCE

Pinch-1 (49) is a mouse monoclonal antibody raised against amino acids 120-220 of Pinch-1 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

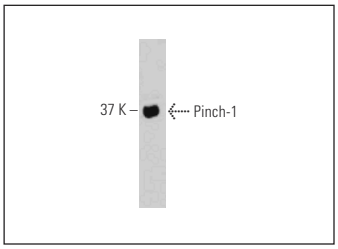
Pinch-1 (49) is recommended for detection of Pinch-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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.

Positive Controls: K-562 whole cell lysate: sc-2203 or human platelet extract: sc-363773.

DATA



Pinch-1 (49): sc-136299. Western blot analysis of Pinch-1 expression in K-562 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Peng, Y.T., et al. 2016. Particularly interesting Cys-His-rich protein is highly expressed in human intracranial aneurysms and resists aneurysmal rupture. Exp. Ther. Med. 12: 3905-3912.

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. Not for resale.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.