SANTA CRUZ BIOTECHNOLOGY, INC.

Pinch-1/2 (H-300): sc-67177

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pinch 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 another member of the Pinch family, Pinch-2, which also forms a complex with ILK.

REFERENCES

1. Zhang, Y., et al. 2002. Characterization of Pinch-2, a new focal adhesion protein that regulates the 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. 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.
5. 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.
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.

CHROMOSOMAL LOCATION

Genetic locus: LIMS1 (human) mapping to 2q12.3, LIMS2 (human) mapping to 2q14.3; Lims1 (mouse) mapping to 10 B4, Lims2 (mouse) mapping to 18 B1.

SOURCE

Pinch-1/2 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Pinch-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Pinch-1/2 (H-300) is recommended for detection of Pinch-1 and Pinch-2 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)], 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-1/2 (H-300) is also recommended for detection of Pinch-1 and Pinch-2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Pinch-1: 37 kDa.

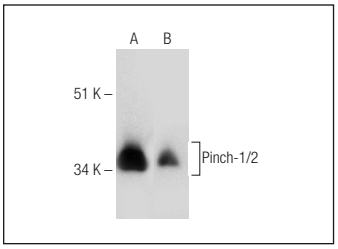
Molecular Weight of Pinch-2: 39 kDa.

Positive Controls: T98G cell lysate: sc-2294, COLO 320DM cell lysate: sc-2226 or human platelet whole cell lysate: sc-363773.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Pinch-1/2 (H-300): sc-67177. Western blot analysis of Pinch-1/2 expression in T98G (**A**) and COLO 320DM (**B**) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.