SANTA CRUZ BIOTECHNOLOGY, INC.

ICAP-1 (FL-200): sc-68411



BACKGROUND

protein 1) is a 200 amino acid protein encoded by the human gene ITGB1BP1. Integrins are transmembrane heterodimeric receptors for extracellular matrix and cell surface proteins. The binding of integrins to ligands in the extracellular matrix is linked to cell attachment and spreading, which in turn activates various cytosolic signal cascades to promote cell migration, survival, proliferation and differentiation. ICAP-1 interacts with the cytoplasmic domain of Integrin β 1 (ITGB1) to facilitate the recruitment of Integrin β 1 to the focal contacts during integrin-dependent cell adhesion. ICAP-1 is a cytoplasmic protein that is primarily expressed in intestine, colon, testis, ovary, thymus, spleen and prostate.

REFERENCES

- 1. Chang, D.D., Wong, C., Smith, H. and Liu, J. 1997. ICAP-1, a novel β1 integrin cytoplasmic domain-associated protein, binds to a conserved and functionally important NPXY sequence motif of β 1 integrin. J. Cell Biol. 138: 1149-1157.
- 2. Zhang, J., Clatterbuck, R.E., Rigamonti, D., Chang, D.D. and Dietz, H.C. 2001. Interaction between KRIT1 and ICAP-1 α infers perturbation of integrin β1-mediated angiogenesis in the pathogenesis of cerebral cavernous malformation. Hum. Mol. Genet. 10: 2953-2960.
- 3. Chang, D.D., Hoang, B.Q., Liu, J. and Springer, T.A. 2002. Molecular basis for interaction between ICAP-1 α PTB domain and β 1 integrin. J. Biol. Chem. 277: 8140-8145.
- 4. Calderwood, D.A., Fujioka, Y., de Pereda, J.M., García-Alvarez, B., Nakamoto, T., Margolis, B., McGlade, C.J., Liddington, R.C. and Ginsberg, M.H. 2003. Integrin β cytoplasmic domain interactions with phosphotyrosine-binding domains: a structural prototype for diversity in integrin signaling. Proc. Natl. Acad. Sci. USA 100: 2272-2277.
- 5. Hillman, R.T., Green, R.E. and Brenner, S.E. 2004. An unappreciated role for RNA surveillance. Genome Biol. 5: R8.

CHROMOSOMAL LOCATION

Genetic locus: ITGB1BP1 (human) mapping to 2p25.1; ltgb1bp1 (mouse) mapping to 12 A1.2.

SOURCE

ICAP-1 (FL-200) is a rabbit polyclonal antibody raised against amino acids 1-200 representing full length ICAP-1 of human origin.

PRODUCT

Each vial contains 200 µg lgG 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

ICAP-1 (FL-200) is recommended for detection of ICAP-1 of mouse 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).

ICAP-1 (FL-200) is also recommended for detection of ICAP-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ICAP-1 siRNA (h): sc-62485, ICAP-1 siRNA (m): sc-62486, ICAP-1 shRNA Plasmid (h): sc-62485-SH, ICAP-1 shRNA Plasmid (m): sc-62486-SH, ICAP-1 shRNA (h) Lentiviral Particles: sc-62485-V and ICAP-1 shRNA (m) Lentiviral Particles: sc-62486-V.

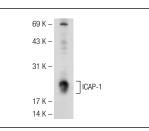
Molecular Weight of ICAP-1: 22 kDa.

Positive Controls: mouse brain extract: sc-2253.

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 antirabbit 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.





ICAP-1 (FI-200): sc-68411. Western blot analysis of ICAP-1 expression in mouse brain tissue extract

RESEARCH USE

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

