

α E-catenin (H-297): sc-7894

BACKGROUND

α E-catenin (also designated α -catenin; cadherin-associated protein, α 1, and CAP102) plays a role in E-cadherin mediated cell-cell adhesion by linking E-cadherin to the cytoskeleton via β - or γ -catenin and actin. α E-catenin connects cell-density-dependent adherens junctions with the developmental hedgehog pathway and may provide a negative feedback loop controlling the size of developing cerebral cortex. It is abundant in neuroepithelial precursor cells in the developing cortical ventricular zone of the brain, with reduced expression in the cortical plate. α E-catenin-vinculin interactions play a role in the assembly of the apical junction complex in epithelia. Catenins generally are thought to work as connectors that anchor E-cadherin to the cytoskeletal actin bundle through the cadherin cytoplasmic domain. Dysfunction of this adhesion complex causes dissociation of cancer cells from primary tumor nodules, and is thus considered a contributing factor to metastasis.

CHROMOSOMAL LOCATION

Genetic locus: CTNNA1 (human) mapping to 5q31.2, CTNNA2 (human) mapping to 2p12; Ctnna1 (mouse) mapping to 18 B1, Ctnna2 (mouse) mapping to 6 C3.

SOURCE

α E-catenin (H-297) is a rabbit polyclonal antibody raised against amino acids 610-906 mapping at the C-terminus of α E-catenin of human origin.

PRODUCT

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

APPLICATIONS

α E-catenin (H-297) is recommended for detection of α E-catenin and α N-catenin of mouse, rat, human, *Drosophila melanogaster*, *Xenopus laevis* and zebrafish origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

α E-catenin (H-297) is also recommended for detection of α E-catenin and α N-catenin in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of α E-catenin: 102 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213, c4 whole cell lysate: sc-364186 or HeLa whole cell lysate: sc-2200.

STORAGE

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

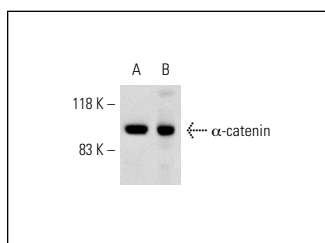
PROTOCOLS

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

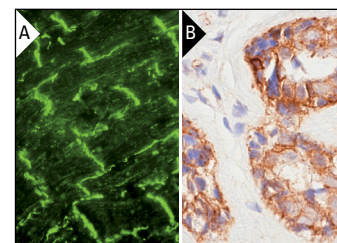
RESEARCH USE

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

DATA



α -catenin (H-297): sc-7894. Western blot analysis of α -catenin expression in c4 (A) and WEHI-231 (B) whole cell lysates



α -catenin (H-297): sc-7894. Immunofluorescence staining of normal mouse heart frozen section showing membrane (cell-cell adhesion) staining (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast showing membrane and cytoplasmic staining (B).

SELECT PRODUCT CITATIONS

- Lemonnier, J., et al. 2001. Role of N-cadherin and protein kinase C in osteoblast gene activation induced by the S252W fibroblast growth factor receptor 2 mutation in Apert craniosynostosis. *J. Bone Miner. Res.* 16: 832-845.
- Larive, R.M., et al. 2009. Phosphoproteomic analysis of Syk kinase signaling in human cancer cells reveals its role in cell-cell adhesion. *Oncogene* 28: 2337-2347.
- Su, L., et al. 2011. P-glycoprotein regulates blood-testis barrier dynamics via its effects on the occludin/zonula occludens 1 (ZO-1) protein complex mediated by focal adhesion kinase (FAK). *Proc. Natl. Acad. Sci. USA* 108: 19623-19628.
- Yeh, Y.C., et al. 2011. DDR1 triggers epithelial cell differentiation by promoting cell adhesion through stabilization of E-cadherin. *Mol. Biol. Cell* 22: 940-953.
- Xiao, X., et al. 2012. Intercellular adhesion molecule-1 is a regulator of blood-testis barrier function. *J. Cell Sci.* 125: 5677-5689.
- Qian, X., et al. 2013. Palladin is a regulator of actin filament bundles at the ectoplasmic specialization in adult rat testes. *Endocrinology* 154: 1907-1920.
- Liang, X., et al. 2014. Dynamic microbe and molecule networks in a mouse model of colitis-associated colorectal cancer. *Sci. Rep.* 4: 4985.



Try α E-catenin (G-11): sc-9988 or α E-catenin (I65): sc-47753, our highly recommended monoclonal alternatives to α E-catenin (H-297).