



p- α E-catenin (Ser 641): sc-101824

BACKGROUND

α E-catenin (also designated α -catenin; cadherin-associated protein, α 1, 102 kDa; 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 neuro-epithelial 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.

REFERENCES

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2. Linkels, M., et al. 1997. Molecular cloning of an alternative human α E-catenin cDNA. *Biochem. Biophys. Res. Commun.* 237: 177-181.
3. Watabe-Uchida, M., et al. 1998. α -catenin-vinculin interaction functions to organize the apical junctional complex in epithelial cells. *J. Cell Biol.* 142: 847-857.
4. Vermeulen, S.J., et al. 1999. The α E-catenin gene (CTNNA1) acts as an invasion-suppressor gene in human colon cancer cells. *Oncogene* 18: 905-915.
5. Vanpoucke, G., et al. 2002. The human α E-catenin gene CTNNA1: mutational analysis and rare occurrence of a truncated splice variant. *Biochim. Biophys. Acta* 1574: 262-268.
6. Andre, F., et al. 2004. α -catenin is required for IGF-I-induced cellular migration but not invasion in human colonic cancer cells. *Oncogene* 23: 1177-1186.
7. Stocker, A.M., et al. 2006. Differential expression of α E-catenin and α -N-catenin in the developing cerebral cortex. *Brain Res.* 1073-1074: 151-158.
8. Lien, W.H., et al. 2006. α E-catenin controls cerebral cortical size by regulating the hedgehog signaling pathway. *Science* 311: 1609-1612.

CHROMOSOMAL LOCATION

Genetic locus: CTNNA1 (human) mapping to 5q31.2; Ctnna1 (mouse) mapping to 18 B1.

SOURCE

p- α E-catenin (Ser 641) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 641 of α E-catenin of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p- α E-catenin (Ser 641) is recommended for detection of Ser 641 phosphorylated α E-catenin of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for α E-catenin siRNA (h): sc-29190 and α E-catenin siRNA (m): sc-29612.

Molecular Weight of α E-catenin: 102 kDa.

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048.

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 or our catalog for detailed protocols and support products.