SANTA CRUZ BIOTECHNOLOGY, INC.

α E-catenin (C-19): sc-1495

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 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; Ctnna1 (mouse) mapping to 18 B1.

SOURCE

α E-catenin (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of α E-catenin 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.

Blocking peptide available for competition studies, sc-1495 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

α E-catenin (C-19) is recommended for detection of α E-catenin of mouse, rat, human, *Xenopus laevis* and zebrafish 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), 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 (C-19) is also recommended for detection of α E-catenin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for α E-catenin siRNA (h): sc-29190, α E-catenin siRNA (m): sc-29612, α E-catenin shRNA Plasmid (h): sc-29190-SH, α E-catenin shRNA Plasmid (m): sc-29612-SH, α E-catenin shRNA (h) Lentiviral Particles: sc-29190-V and α E-catenin shRNA (m) Lentiviral Particles: sc-29612-V.

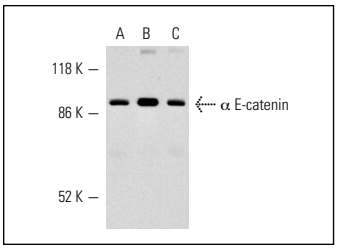
Molecular Weight of α E-catenin: 102 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or T98G cell lysate: sc-2294.

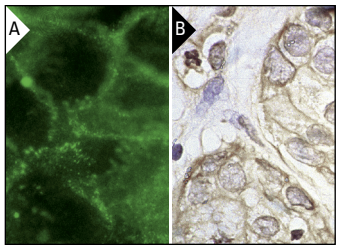
STORAGE

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

DATA



α E-catenin (C-19): sc-1495. Western blot analysis of α E-catenin expression in HeLa (**A**), A-431 (**B**) and RAW 264.7 (**C**) whole cell lysates.



α E-catenin (C-19): sc-1495. Immunofluorescence staining of methanol-fixed A-431 cells showing membrane localization (**A**). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing membrane and cytoskeletal localization (**B**).

SELECT PRODUCT CITATIONS

1. Bannerman, D.D., et al. 1998. Bacterial lipopolysaccharide disrupts endothelial monolayer integrity and survival signaling events through caspase cleavage of adherens junction proteins. J. Biol. Chem. 273: 35371-35380.
2. Arenas, M.I., et al. 2000. E-, N- and P-cadherin, and α-, β- and γ-catenin protein expression in normal, hyperplastic and carcinomatous human prostate. Histochem. J. 32: 659-667.
3. Sundfeldt, K., et al. 2000. E-cadherin-catenin complex in the rat ovary: cell-specific expression during folliculogenesis and luteal formation. J. Reprod. Fertil. 118: 375-385.
4. Scotti, S., et al. 2000. Reduced proliferation and cell adhesion in endometriosis. Mol. Hum. Repro. 6: 610-617.
5. Krengel, S., et al. 2004. Cadherin expression pattern in melanocytic tumors more likely depends on the melanocyte environment than on tumor cell progression. J. Cutan. Pathol. 31: 1-7.
6. Covington, M.D., et al. 2006. Ischemia-induced cleavage of cadherins in NRK cells requires MT1-MMP (MMP-14). Am. J. Physiol. Renal Physiol. 290: F43-F51.
7. Rajoria, S., et al. 2010. Metastatic phenotype is regulated by estrogen in thyroid cells. Thyroid 20: 33-41.

RESEARCH USE

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