

α E-catenin (1G5): sc-47753

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, thus possibly contributing to cancer invasion and metastasis.

CHROMOSOMAL LOCATION

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

SOURCE

α E-catenin (1G5) is a mouse monoclonal antibody raised against α E-catenin of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain 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

α E-catenin (1G5) is recommended for detection of α E-catenin of mouse, rat and human 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for α E-catenin siRNA (h): sc-29190, α E-catenin siRNA (m): sc-29612, α E-catenin siRNA (r): sc-270264, α E-catenin shRNA Plasmid (h): sc-29190-SH, α E-catenin shRNA Plasmid (m): sc-29612-SH, α E-catenin shRNA Plasmid (r): sc-270264-SH, α E-catenin shRNA (h) Lentiviral Particles: sc-29190-V, α E-catenin shRNA (m) Lentiviral Particles: sc-29612-V and α E-catenin shRNA (r) Lentiviral Particles: sc-270264-V.

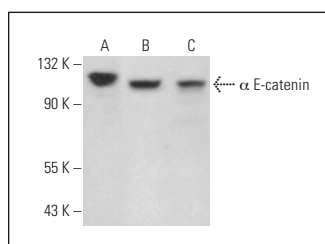
Molecular Weight of α E-catenin: 102 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or MCF7 whole cell lysate: sc-2206.

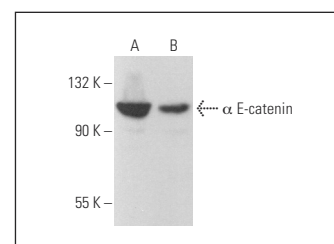
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



α E-catenin (1G5): sc-47753. Western blot analysis of α E-catenin expression in HeLa (A), NIH/3T3 (B) and Sol8 (C) whole cell lysates.



α E-catenin (1G5): sc-47753. Western blot analysis of α E-catenin expression in A-431 (A) and MCF7 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Merdek, K.D., et al. 2008. α E-catenin induces SRF-dependent transcriptional activity through its C-terminal region and is partly RhoA/ROCK-dependent. *Biochem. Biophys. Res. Commun.* 366: 717-723.
- Kudo, T., et al. 2009. Cathepsin G, a neutrophil protease, induces compact cell-cell adhesion in MCF-7 human breast cancer cells. *Mediators Inflamm.* 2009: 850940.
- Hsiao, C.C., et al. 2011. GPS autoproteolysis is required for CD97 to up-regulate the expression of N-cadherin that promotes homotypic cell-cell aggregation. *FEBS Lett.* 585: 313-318.
- Yang, B., et al. 2020. MicroRNA-200a promotes esophageal squamous cell carcinoma cell proliferation, migration and invasion through extensive target genes. *Mol. Med. Rep.* 21: 2073-2084.

RESEARCH USE

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

PROTOCOLS

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