3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Anti-α-N-Catenin
Developed in Rabbit
IgG Fraction of Antiserum

Product Number **C 8239**

Product Description

Anti-α-N-Catenin is developed in rabbit using as immunogen a synthetic peptide corresponding to a region near the N-terminus of human α-N-catenin (amino acids 171-186), conjugated to KLH. This sequence is identical in mouse and chicken α-N-catenin. It is not found in α-E-catenin, β-catenin, and γ-catenin. Whole antiserum is fractionated and then further purified by ion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.

Anti-α-N-Catenin recognizes α-N-catenin (102 kDa) by immunoblotting. Staining of the α-N-catenin band in immunoblotting is specifically inhibited with the α-N-catenin immunizing peptide (human, amino acids 171-186).

The catenins α-, β-, and γ-) are cytoplasmic proteins found in varying abundance in many developing and adult tissues.[1, 2] Catenins bind directly or indirectly to the conserved cytoplasmic tail domain of the cell adhesion cadherins. The association of catenins to cadherins produces a complex, which is linked to the actin filament network.[3] Catenins/cadherin complexes play an important role in mediating cell adhesion, transduction of cell-cell contact positional signals to the cell interior, and may play a crucial role in cell differentiation.[4] The linkage of the epithelial E-cadherin/uvomorulin to actin is essential for the cell binding function of this cadherin. α-Catenin (CAP102, 102 kDa), originally described as an E-cadherin associated protein, has been shown to associate with other members of the cadherin family members, N-cadherin and P-cadherin. Within its conserved region α-catenin shows 30% identity to vinculin.[5, 6]

There are at least two subtypes of α-catenin: α-E-catenin and α-N-catenin (102 kDa).[7, 8] The predominant form is α-E-catenin. It is ubiquitously expressed and present at low levels in the nervous system.[7, 9] α-E-Catenin is absent in certain tumor cell lines and has been thought to act as an invasion suppressor gene.[10] α-Catenin levels are frequently reduced in human carcinomas of the esophagus, stomach and colon.[11] The expression of α-N-catenin is more restricted and this form predominates in the brain and is localized at synaptic junctions.[12] Alternative spliced forms of α-N-catenin include α-N-catenin I and α-N-catenin II.[13] The ratio of the two isoforms changes during development: isoforms II is more abundant than isoform I in early embryonic development, whereas isoform I is predominant in the adult stage.

Reagent

Anti-α-N-Catenin is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing is not recommended. Storage in frost-free freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile
For immunoblotting, a minimum working antibody dilution of 1:1,000 is recommended using a cytosolic fraction S1 of mouse brain and rat embryonic brain.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilution by titration.

References

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