10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-α1-Catenin (Tyr-148), Phosphospecific Antibody

Catalog # AN1673

Specification

Anti-α1-Catenin (Tyr-148), Phosphospecific Antibody - Product Information

Primary Accession	P35221
Reactivity	**Bovine, Chicken**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**100071**

Anti-α1-Catenin (Tyr-148), Phosphospecific Antibody - Additional Information

Gene ID	**1495**

Other Names
alphaE-catenin, catenin alpha1, catenin

Target/Specificity
α-catenins are cadherin interacting proteins with homology to vinculin. Three α-catenin genes have been described including α1-catenin (αE-Catenin), α2-catenin (αN-catenin), and α3-catenin (αT-catenin). α1-catenin has 81% homology with α2-catenin and 60% homology with α3-catenin. These α-catenin isoforms may have similar roles since each binds cadherins. However, their expression patterns are both overlapping and distinct. α1-catenin was identified in epithelial cells, and is expressed in various cell types. α2-catenin is enriched in the nervous system, and α3-catenin is expressed highest in testis and heart. Phosphorylation may regulate the activity of α1-catenin, since tyrosine phosphorylation of Tyr-148 occurs during intercellular adhesion. This site is dephosphorylated by SHP2, which inhibits α1-catenin binding to β-catenin and translocation to the plasma membrane. Phosphorylation of α1-catenin at Tyr-148 may be important for inhibition of cell transformation, and dephosphorylation of this site may be important during SHP2-mediated cell transformation.

Format
Antigen Affinity Purified

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-α1-Catenin (Tyr-148), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-α1-Catenin (Tyr-148), Phosphospecific Antibody - Protocols

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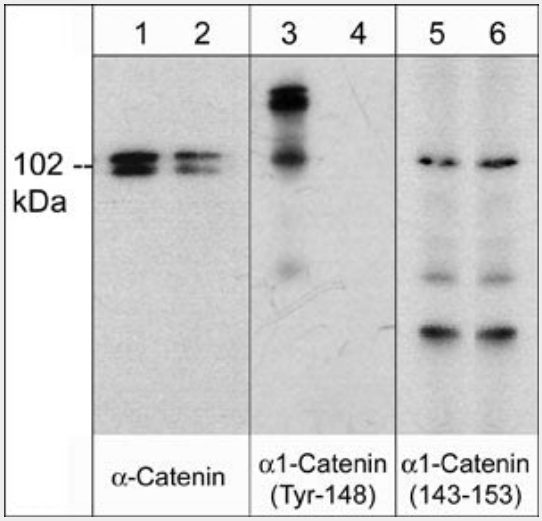
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-α1-Catenin (Tyr-148), Phosphospecific Antibody - Images



Western blot analysis of rat PC12 cells treated with pervanadate (1 mM) for 30 min (lanes 1, 3, & 5) then the blot was treated with alkaline phosphatase (lanes 2, 4, & 6). The blot was probed with anti-α-Catenin monoclonal (lanes 1 & 2), anti-α1-Catenin (Tyr-148) phospho-specific (lanes 3 & 4), or anti-α1-Catenin (a.a. 143-153) (lanes 5 & 6).

Anti-α1-Catenin (Tyr-148), Phosphospecific Antibody - Background

α-catenins are cadherin interacting proteins with homology to vinculin. Three α-catenin genes have been described including α1-catenin (αE-Catenin), α2-catenin (αN-catenin), and α3-catenin (αT-catenin). α1-catenin has 81% homology with α2-catenin and 60% homology with α3-catenin. These α-catenin isoforms may have similar roles since each binds cadherins. However, their expression patterns are both overlapping and distinct. α1-catenin was identified in epithelial cells, and is expressed in various cell types. α2-catenin is enriched in the nervous system, and α3-catenin is expressed highest in testis and heart. Phosphorylation may regulate the activity of α1-catenin, since tyrosine phosphorylation of Tyr-148 occurs during intercellular adhesion. This site is dephosphorylated by SHP2, which inhibits α1-catenin binding to β-catenin and translocation to the plasma membrane. Phosphorylation of α1-catenin at Tyr-148 may be important for inhibition of cell transformation, and dephosphorylation of this site may be important during SHP2-mediated cell transformation.