

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

Catalog # AN1673

## **Product Information**

Application	WB
Primary Accession	<u>P35221</u>
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	100071

## **Additional Information**

Gene ID Other Names	1495 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 at Tyr-148 may be important for inhibition of cell transformation, and dephosphorylation of this site may be important during SHP2-mediated cell transformation.
Dilution	WB~~1:1000
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

## Background

 $\alpha$ -catenins are cadherin interacting proteins with homology to vinculin. Three  $\alpha$ -catenin genes have been described including  $\alpha$ 1-catenin ( $\alpha$ E-Catenin),  $\alpha$ 2-catenin ( $\alpha$ N-catenin), and  $\alpha$ 3-catenin ( $\alpha$ T-catenin).  $\alpha$ 1-catenin

has 81% homology with  $\alpha$ 2-catenin and 60% homology with  $\alpha$ 3-catenin. These  $\alpha$ -catenin isoforms may have similar roles since each binds cadherins. However, their expression patterns are both overlapping and distinct.  $\alpha$ 1-catenin was identified in epithelial cells, and is expressed in various cell types.  $\alpha$ 2-catenin is enriched in the nervous system, and  $\alpha$ 3-catenin is expressed highest in testis and heart. Phosphorylation may regulate the activity of  $\alpha$ 1-catenin, since tyrosine phosphorylation of Tyr-148 occurs during intercellular adhesion. This site is dephosphorylated by SHP2, which inhibits  $\alpha$ 1-catenin binding to  $\beta$ -catenin and translocation to the plasma membrane. Phosphorylation of  $\alpha$ 1-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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.