

# Anti- $\alpha$ 1-Catenin (Tyr-148), Phosphospecific Antibody

Catalog # AN1673

## Product Information

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Application	WB
Primary Accession	<a href="#">P35221</a>
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	100071

## Additional Information

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Gene ID	1495
Other Names	alphaE-catenin, catenin alpha1, catenin

Target/Specificity	<p><math>\alpha</math>-catenins are cadherin interacting proteins with homology to vinculin. Three <math>\alpha</math>-catenin genes have been described including <math>\alpha</math>1-catenin (<math>\alpha</math>E-Catenin), <math>\alpha</math>2-catenin (<math>\alpha</math>N-catenin), and <math>\alpha</math>3-catenin (<math>\alpha</math>T-catenin). <math>\alpha</math>1-catenin has 81% homology with <math>\alpha</math>2-catenin and 60% homology with <math>\alpha</math>3-catenin. These <math>\alpha</math>-catenin isoforms may have similar roles since each binds cadherins. However, their expression patterns are both overlapping and distinct. <math>\alpha</math>1-catenin was identified in epithelial cells, and is expressed in various cell types. <math>\alpha</math>2-catenin is enriched in the nervous system, and <math>\alpha</math>3-catenin is expressed highest in testis and heart. Phosphorylation may regulate the activity of <math>\alpha</math>1-catenin, since tyrosine phosphorylation of Tyr-148 occurs during intercellular adhesion. This site is dephosphorylated by SHP2, which inhibits <math>\alpha</math>1-catenin binding to <math>\beta</math>-catenin and translocation to the plasma membrane. Phosphorylation of <math>\alpha</math>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.</p>
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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- $\alpha$ 1-Catenin (Tyr-148), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

## Background

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$\alpha$ -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'.