

# a-Catenin(Phospho-Ser641) Antibody

Catalog No: #11330

Package Size: #11330-1 50ul #11330-2 100ul

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## Description

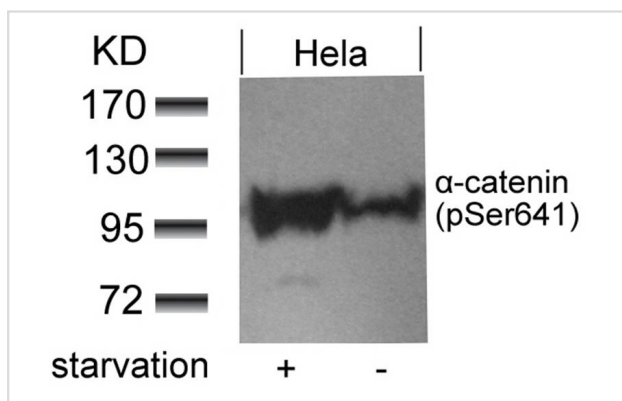
Product Name	a-Catenin(Phospho-Ser641) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Applications	WB
Species Reactivity	Human;Mouse
Specificity	The antibody detects endogenous level of a-catenin only when phosphorylated at serine 641.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 641 (D-D-S(p)-D-F) derived from Human a-catenin.
Conjugates	Unconjugated
Target Name	a-catenin
Modification	Phospho
Other Names	Cadherin-associated protein; Alpha E-catenin; NY-REN-13 antigen
Accession No.	Swiss-Prot: P35221NCBI Protein: NP_001894.2
Calculated MW	100 kDa
SDS-PAGE MW	100 kDa
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

## Application Details

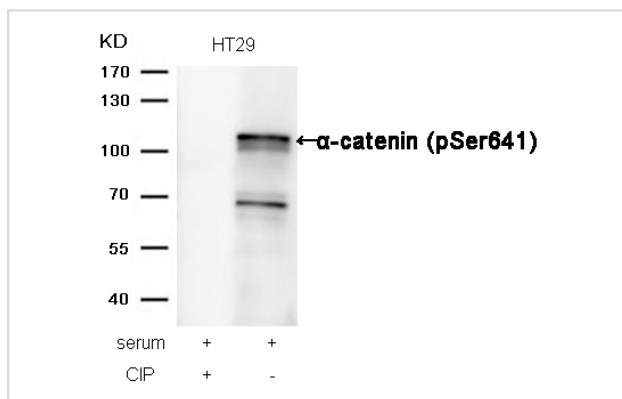
Predicted MW: 100kd

Western blotting: 1:500~1:1000

## Images



Western blot analysis of extracts from HeLa cells untreated or treated with starvation using  $\alpha$ -catenin(Phospho-Ser641) antibody #11330.



Western blot analysis of extracts from HT29 cells, treated with serum or calf intestinal phosphatase (CIP), using  $\alpha$ -catenin (Phospho-Ser641) Antibody #11330.

## Background

Associates with the cytoplasmic domain of a variety of cadherins. The association of catenins to cadherins produces a complex which is linked to the actin filament network, and which seems to be of primary importance for cadherins cell-adhesion properties. May play a crucial role in cell differentiation.

Hwang, S.G. et al. (2005) J. Biol. Chem. 280, 12758-12765

Drees, F. et al. (2005) Cell 123, 903-915.

Yamada, S. et al. (2005) Cell 123, 889-901.

Kobielak, A. and Fuchs, E. (2004) Nat. Rev. Mol. Cell Biol. 5, 614-625.

## Published Papers

Ji H, Wang J, Nika H et al., EGF-induced ERK activation promotes CK2-mediated disassociation of alpha-Catenin from beta-Catenin and transactivation of beta-Catenin., Mol Cell, 36(4):547-559(2009)

[PMID:19941816](#)

et al., Force-dependent allostery of the  $\alpha$ -catenin actin-binding domain controls adherens junction dynamics and functions. In Nat Commun. On 2018 Nov 30 by Ishiyama N, Sarpal R et al..PMID: 30504777, , (2018)

[PMID:30504777](#)

et al., 2-Aminothiazole Derivatives as Selective Allosteric Modulators of the Protein Kinase CK2. 2. Structure-Based Optimization and Investigation of Effects Specific to the Allosteric Mode of Action. In J Med Chem. On 2019 Feb 28 by Bestgen B, Kufareva I et al..PMID:30689946, , (2019)

[PMID:30689946](#)

et al., Ginsenoside Rh2 activates  $\alpha$ -catenin phosphorylation to inhibit lung cancer cell proliferation and invasion. In Exp Ther Med on 2020 Apr; by Zhang G, He L, et al..PMID: 32256776, , (2020)

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et al., EGF-induced ERK activation promotes CK2-mediated disassociation of alpha-Catenin from beta-Catenin and transactivation of beta-Catenin. In Mol Cell on 2009 Nov 25 by Ji H, Wang J, et al..PMID:19941816, , (2009)

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el at., EGFR-induced and PKC $\theta$  monoubiquitylation-dependent NF- $\kappa$ B activation upregulates PKM2 expression and promotes tumorigenesis. In Mol Cell on 2012 Dec 14 by

Weiwei Yang, Yan Xia, et al..PMID: 23123196, , (2012)

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el at., Helicobacter pylori Induces Cell Migration and Invasion Through Casein Kinase 2 in Gastric Epithelial Cells.In Helicobacter on 2014 Dec by Yeo Song Lee, Do Yeon Lee et al..PMID: 25052887, , (2014)

[PMID:25052887](#)

el at.,  $\alpha$ -catenin phosphorylation is elevated during mitosis to resist apical rounding and epithelial barrier leak. In bioRxiv [Preprint] on 2024 Sep 6 by Phuong M Le, Jeanne M Quinn,et al..PMID:39282345, , (2024)

[PMID:39282345](#)

Phuong M Le;Jeanne M Quinn;Annette S Flozak;Adam W T Steffeck;Che-Fan Huang;Cara J Gottardi el at.,  $\alpha$ -catenin phosphorylation is elevated during mitosis to resist apical rounding and epithelial barrier leak., , (2025)

[PMID:39782767](#)

Quinn Jeanne M, Le Phuong M, Weng Anthea, Flozak Annette S, Folmsbee S Sai, ArroyoColon Erik, Ikura Mitsu, Ishiyama Noboru, Gottardi Cara J el at.,  $\alpha$ -catenin phosphorylation is actomyosin-sensitive and required for epithelial barrier functions through Afadin, bioRxiv : the preprint server for biology, (2025)

[PMID:40894575](#)

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.