

ARG52236 anti-beta Catenin phospho (Ser33 / 37) antibody

Package: 100 μl, 50 μl Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes beta Catenin phospho (Ser33 / 37)
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Xenopus laevis
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
lsotype	lgG
Target Name	beta Catenin
Species	Human
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser33/37 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	CTNNB; armadillo; MRD19; Catenin beta-1; Beta-catenin

Application Instructions

Application table	Application	Dilution
	WB	1:1000
Application Note	Specific for the ~83k β-catenin phosphorylated at Ser33 and Ser37. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 1499 Human
	Swiss-port # P35222 Human
Gene Symbol	CTNNB1
Gene Full Name	catenin (cadherin-associated protein), beta 1, 88kDa
Background	β -catenin is a central component of the cadherin cell adhesion complex and plays an essential role in neural development in the Wingless/Wnt signaling pathway (Ding and Dale, 2002; Polakis, 2000). The role of β -catenin in these processes is thought regulated by the sequential phosphorylation of Ser29 Ser33, Ser37 and Thr41 by glycogen synthase kinase 3 β (GSK3 β) (Liu et al., 2002). This hyperphosphorylation promotes the ubiquitylation and targeted destruction of β -catenin. Mutations in components of this phosphorylation regulated process that prevent β -catenin hyperphosphorylation by GSK3 β are strongly associated with cancers (Wang et al., 2003; Polakis, 2000; Liu et al., 2002).
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Developmental Biology antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	85 kDa
PTM	Phosphorylation at Ser-552 by AMPK promotes stabilizion of the protein, enhancing TCF/LEF-mediated transcription (By similarity). Phosphorylation by GSK3B requires prior phosphorylation of Ser-45 by another kinase. Phosphorylation proceeds then from Thr-41 to Ser-37 and Ser-33. Phosphorylated by NEK2. EGF stimulates tyrosine phosphorylation. Phosphorylation on Tyr-654 decreases CDH1 binding and enhances TBP binding. Phosphorylated on Ser-33 and Ser-37 by HIPK2 and GSK3B, this phosphorylation triggers proteasomal degradation (PubMed:25169422). Phosphorylation on Ser-191 and Ser-246 by CDK5. Phosphorylation by CDK2 regulates insulin internalization. Phosphorylation by PTK6 at Tyr-64, Tyr-142, Tyr-331 and/or Tyr-333 with the predominant site at Tyr-64 is not essential for inhibition of transcriptional activity. Ubiquitinated by the SCF(BTRC) E3 ligase complex when phosphorylated by GSK3B, leading to its degradation. Ubiquitinated by a E3 ubiquitin ligase complex containing UBE2D1, SIAH1, CACYBP/SIP, SKP1, APC and TBL1X, leading to its subsequent proteasomal degradation (By similarity). S-nitrosylation at Cys-619 within adherens junctions promotes VEGF-induced, NO-dependent endothelial cell permeability by disrupting interaction with E-cadherin, thus mediating disassembly adherens junctions. O-glycosylation at Ser-23 decreases nuclear localization and transcriptional activity, and increases localization to the plasma membrane and interaction with E-cadherin CDH1. Deacetylated at Lys-49 by SIRT1.

Images



ARG52236 anti-beta Catenin phospho (Ser33 / 37) antibody WB image

Western blot: Human embryonic kidney cell (HEK) lysate stained with ARG52236 anti-beta Catenin phospho (Ser33 / 37) antibody (upper panel) and a pan beta-catenin antibody (lower panel).