



# Rabbit Anti-Human $\beta$ -Cadherin monoclonal antibody, clone E21B9 (CABT-Z505R)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Specificity</b>	This antibody recognizes endogenous levels of total $\beta$ -catenin protein.
<b>Immunogen</b>	A synthetic peptide corresponding to residues surrounding Pro714 of human $\beta$ -catenin protein.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human, Mouse, Rat, Monkey
<b>Clone</b>	E21B9
<b>Purification</b>	Purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB, IP, IHC-P, IF-IC, FC, ChIP, ChIPseq Recommended dilution: WB: 1:1000 IF-IC: 1:50-1:100 IHC: 1:25-1:100 IHC-P: 1:50-1:200 IP: 1:50 FC: 1:50-1:100 ChIP: 1:25 ChIPseq: 1:25
<b>Molecular Weight</b>	92 kDa
<b>Format</b>	Liquid

<b>Concentration</b>	Lot specific
<b>Size</b>	100 $\mu$ l
<b>Buffer</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide.
<b>Preservative</b>	<0.02% sodium azide
<b>Storage</b>	Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Ship</b>	Wet ice

## BACKGROUND

**Introduction** Cadherins are a superfamily of transmembrane glycoproteins that contain cadherin repeats of approximately 100 residues in their extracellular domain. Cadherins mediate calcium-dependent cell-cell adhesion and play critical roles in normal tissue development. The classic cadherin subfamily includes N-, P-, R-, B-, and E-cadherins, as well as about ten other members that are found in adherens junctions, a cellular structure near the apical surface of polarized epithelial cells. The cytoplasmic domain of classical cadherins interacts with  $\beta$ -catenin,  $\gamma$ -catenin (also called plakoglobin), and p120 catenin.  $\beta$ -catenin and  $\gamma$ -catenin associate with  $\alpha$ -catenin, which links the cadherin-catenin complex to the actin cytoskeleton. While  $\beta$ - and  $\gamma$ -catenin play structural roles in the junctional complex, p120 regulates cadherin adhesive activity and trafficking. Investigators consider E-cadherin an active suppressor of invasion and growth of many epithelial cancers. Research studies indicate that cancer cells have upregulated N-cadherin in addition to loss of E-cadherin. This change in cadherin expression is called the "cadherin switch." N-cadherin cooperates with the FGF receptor, leading to overexpression of MMP-9 and cellular invasion. Research studies have shown that in endothelial cells, VE-cadherin signaling, expression, and localization correlate with vascular permeability and tumor angiogenesis. Investigators have also demonstrated that expression of P-cadherin, which is normally present in epithelial cells, is also altered in ovarian and other human cancers.

**Keywords** CTNNB1;catenin (cadherin-associated protein), beta 1, 88kDa;CTNNB;MRD19;armadillo; catenin beta-1

## GENE INFORMATION

<b>Gene Name</b>	CTNNB1
<b>Entrez Gene ID</b>	<a href="#">1499</a>
<b>UniProt ID</b>	<a href="#">P35222</a>