

## Product datasheet for **UM500015**

### beta Catenin (CTNNB1) Mouse Monoclonal Antibody [Clone ID: UMAB15]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	UMAB15
Applications:	10k-ChIP, FC, IF, IHC, WB
Recommended Dilution:	WB 1:500, IHC 1:100, IF 1:100, FLOW 1:100
Reactivity:	Human, Mouse, Rat, Monkey
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CTNNB1 (NP_001895) produced in HEK293T cell.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	0.5~1.0 mg/ml (Lot Dependent)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	85.3 kDa
Gene Name:	catenin beta 1
Database Link:	<a href="#">NP_001895</a> <a href="#">Entrez Gene 12387 Mouse</a> <a href="#">Entrez Gene 84353 Rat</a> <a href="#">Entrez Gene 574265 Monkey</a> <a href="#">Entrez Gene 1499 Human</a> <a href="#">P35222</a>



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**Background:**

The protein encoded by this gene is part of a complex of proteins that constitute adherens junctions (AJs). AJs are necessary for the creation and maintenance of epithelial cell layers by regulating cell growth and adhesion between cells. The encoded protein also anchors the actin cytoskeleton and may be responsible for transmitting the contact inhibition signal that causes cells to stop dividing once the epithelial sheet is complete. Finally, this protein binds to the product of the APC gene, which is mutated in adenomatous polyposis of the colon. Mutations in this gene are a cause of colorectal cancer (CRC), pilomatixoma (PTR), medulloblastoma (MDB), and ovarian cancer. Three transcript variants encoding the same protein have been found for this gene.

**Synonyms:**

armadillo; CTNNB; MRD19

**Protein Families:**

Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors

**Protein Pathways:**

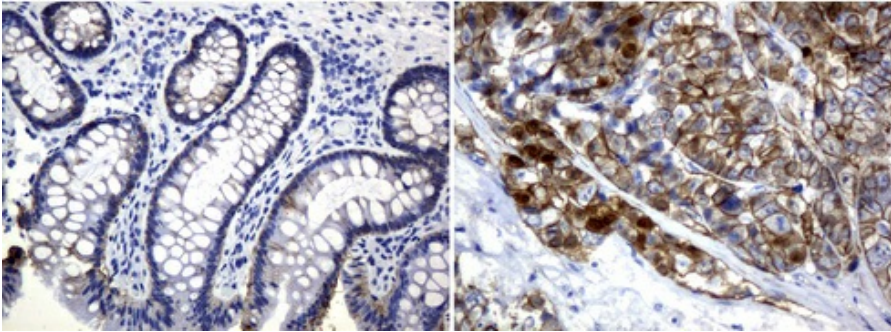
Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Basal cell carcinoma, Colorectal cancer, Endometrial cancer, Focal adhesion, Leukocyte transendothelial migration, Melanogenesis, Pathogenic Escherichia coli infection, Pathways in cancer, Prostate cancer, Thyroid cancer, Tight junction, Wnt signaling pathway

**Product images:**

Immunohistochemical staining of paraffin-embedded Mouse colon tissue using anti-beta-catenin mouse monoclonal antibody. (Clone UMAB15, dilution 1:100; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)

Normal colon

Colorectal Carcinoma

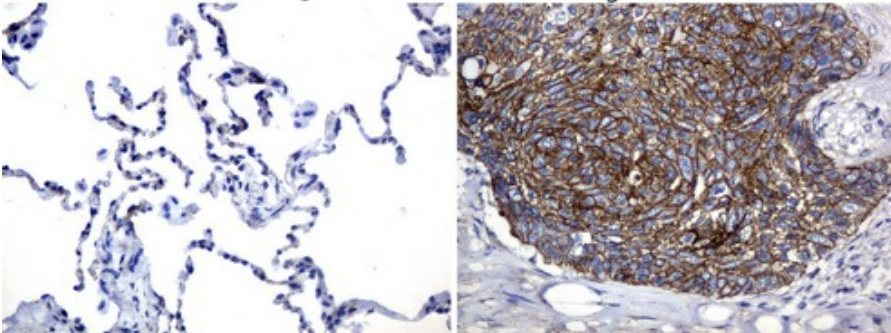


UM500015

Immunohistochemical staining of paraffin-embedded Human normal colon and colorectal carcinoma tissues using anti-beta-catenin mouse monoclonal antibody. Note: beta-catenin is mostly located at membrane/cytoplasmic region, but exhibited intensive nuclear s

Normal Lung

Lung Adenocarcinoma

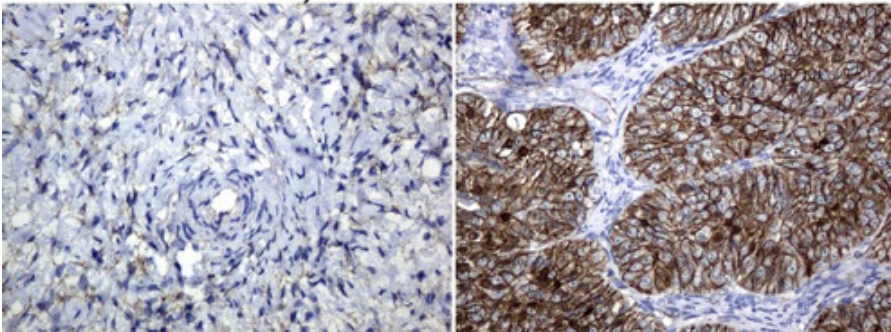


UM500015

Immunohistochemical staining of paraffin-embedded human normal lung and lung Adenocarcinoma tissues using anti-beta-catenin mouse monoclonal antibody. (Clone UMAB15, dilution 1:100; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120C for 3mi

Normal Ovary

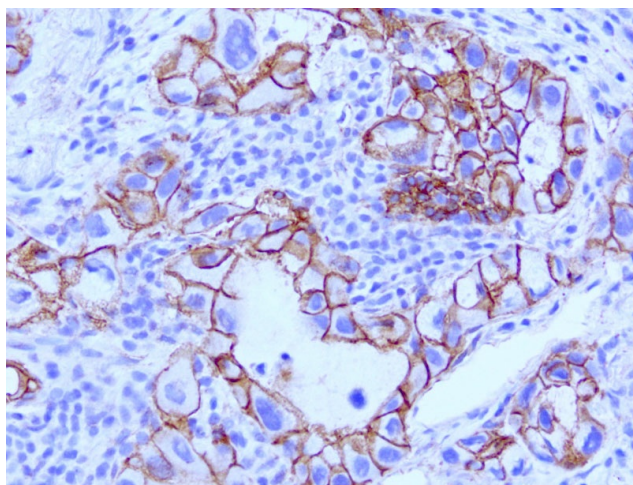
Ovarian Adenocarcinoma



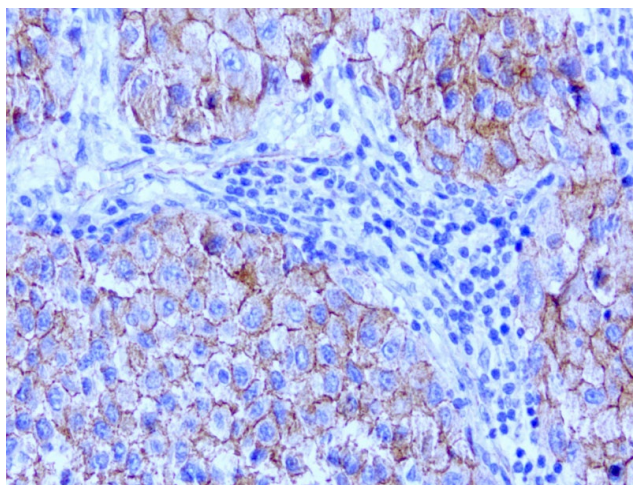
UM500015

Immunohistochemical staining of paraffin-embedded human normal ovary and Adenocarcinoma of the ovary tissues using anti-beta-catenin mouse monoclonal antibody. (Clone UMAB15, dilution 1:100; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120

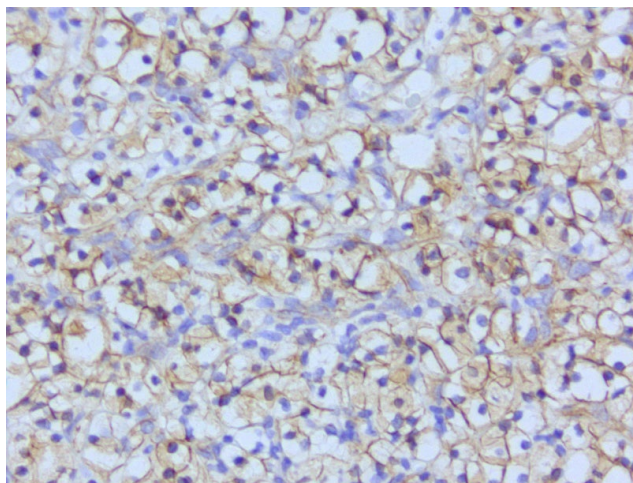




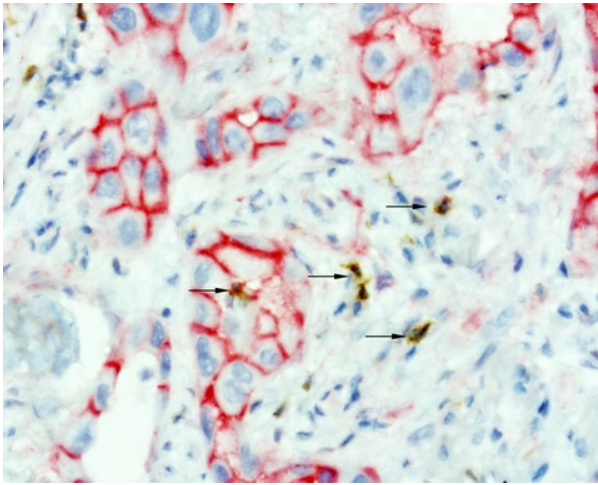
Immunohistochemical staining of paraffin-embedded human lung cancer with mouse anti-Beta Catenin clone UMAB15 1:200 using HIER citrate pressure chamber. Tumor cells show positive membrane staining.



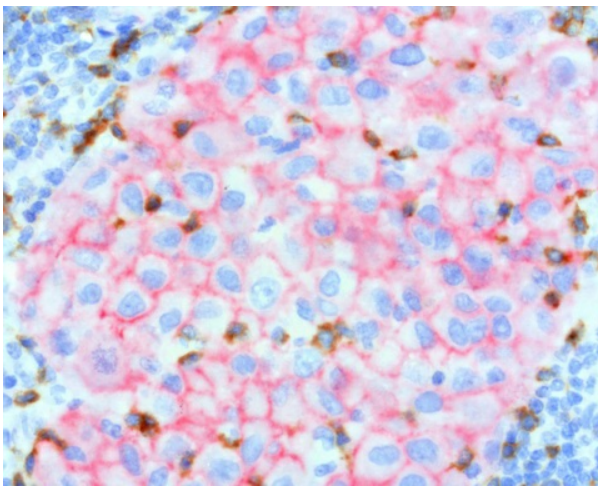
Immunohistochemical staining of paraffin-embedded human melanoma metastasis to lymph node with mouse anti-Beta Catenin clone UMAB15 1:200 using HIER citrate pressure chamber. Tumor cells show positive membrane and cytoplasmic staining.



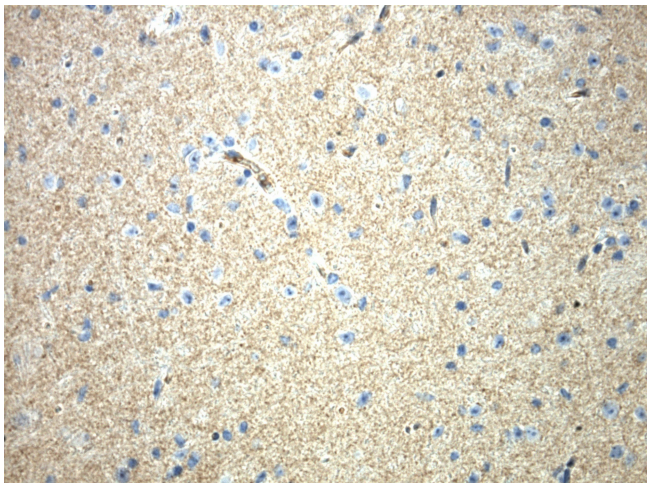
Immunohistochemical staining of paraffin-embedded human renal cell carcinoma with mouse anti-Beta Catenin clone UMAB15 1:200 using HIER citrate pressure chamber. Tumor cells show positive membrane staining.



Sequential double staining of paraffin human melanoma using bCatenin UM500015 (red) and PD1 [UM800091] (brown). Both abs at 1:800 dilution of 1mg/mL. Anti-PD1: heat-induced epitope retrieval with Accel; anti-bCatenin: citrate pH6.0. Image shows the tumor cells are strongly positive for b-catenin (red) and negative for PD1. The arrows point to the activated T cells (brown) show strong membranous and cytoplasmic staining of PD1 and no staining with bCatenin.

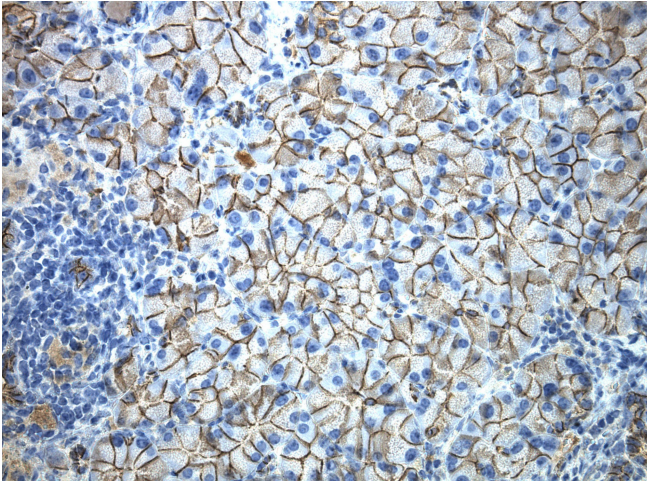


Sequential double staining of paraffin human melanoma using bCatenin UM500015 (red) and PD1 [UM800091] (brown). Both abs at 1:800 dilution of 1mg/mL. Anti-PD1: heat-induced epitope retrieval with Accel; anti-bCatenin: citrate pH6.0. The image of shows the tumor cells are strongly positive for beta-catenin (red) are negative for PD-1. The activated TCells (brown) show strong membranous and cytoplasmic staining for PD-1 and no staining with Beta Catenin.

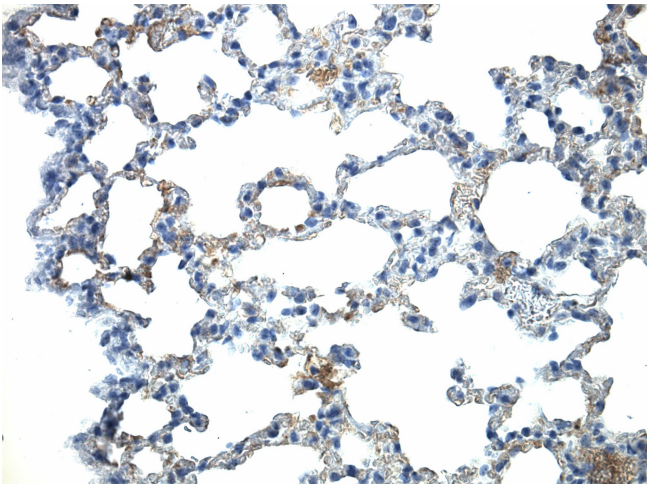


Immunohistochemical staining of paraffin-embedded mouse brain tissue using anti-CTNNB1 clone UMAB15 mouse monoclonal antibody. HIER TEE buffer pH9 ([B21-100]) at 110C for 10 min, UM500015 (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.

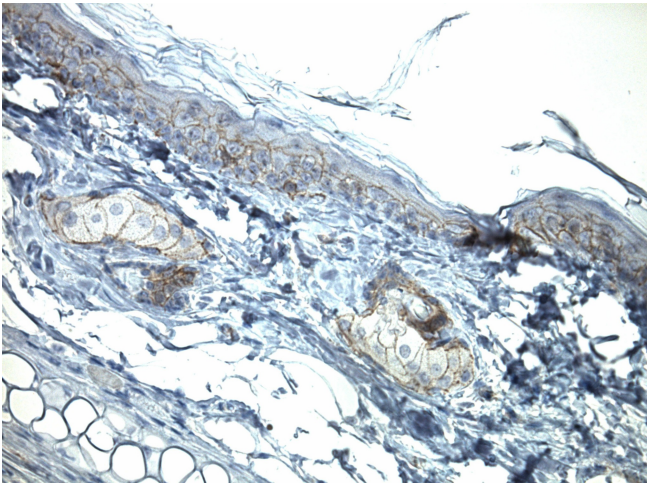




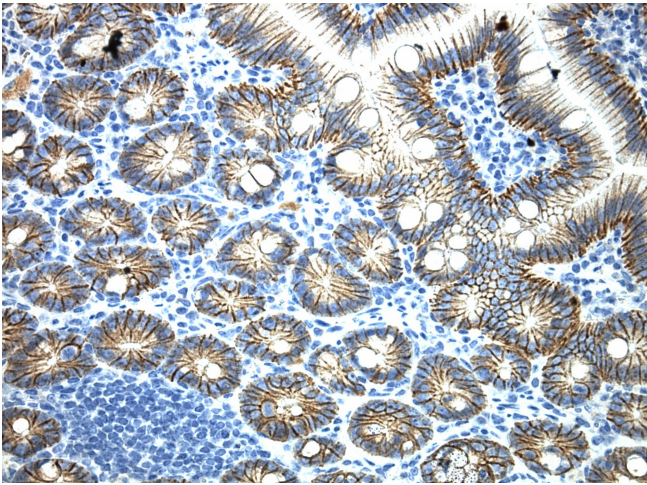
Immunohistochemical staining of paraffin-embedded mouse kidney tissue using anti-CTNNB1 clone UMAB15 mouse monoclonal antibody. HIER TEE buffer pH9 ([B21-100]) at 110C for 10 min, UM500015 (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



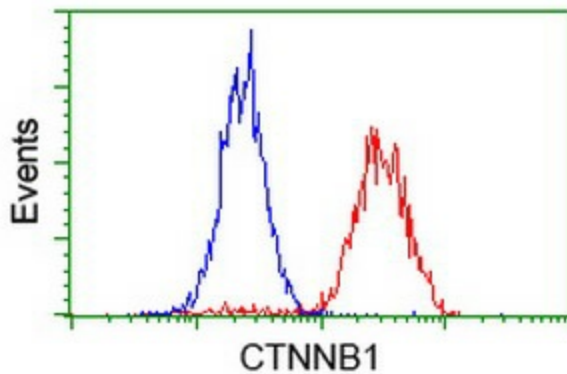
Immunohistochemical staining of paraffin-embedded mouse lung tissue using anti-CTNNB1 clone UMAB15 mouse monoclonal antibody. HIER TEE buffer pH9 ([B21-100]) at 110C for 10 min, UM500015 (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



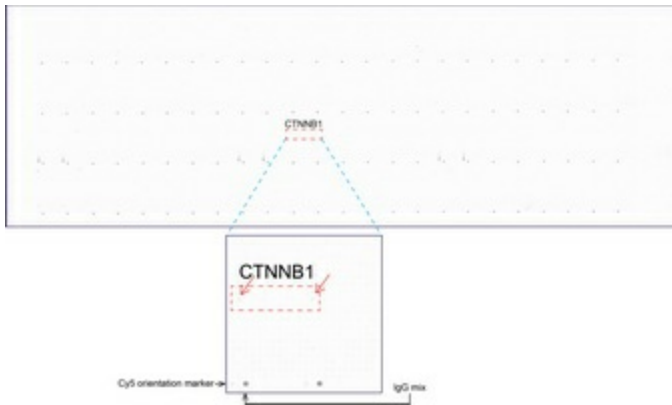
Immunohistochemical staining of paraffin-embedded mouse skin tissue using anti-CTNNB1 clone UMAB15 mouse monoclonal antibody. HIER TEE buffer pH9 ([B21-100]) at 110C for 10 min, UM500015 (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



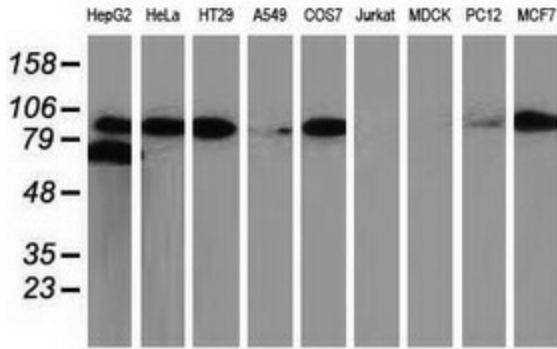
Immunohistochemical staining of paraffin-embedded mouse small intestine tissue using anti-CTNNB1 clone UMAB15 mouse monoclonal antibody. HIER TEE buffer pH9 ([B21-100]) at 110C for 10 min, UM500015 (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



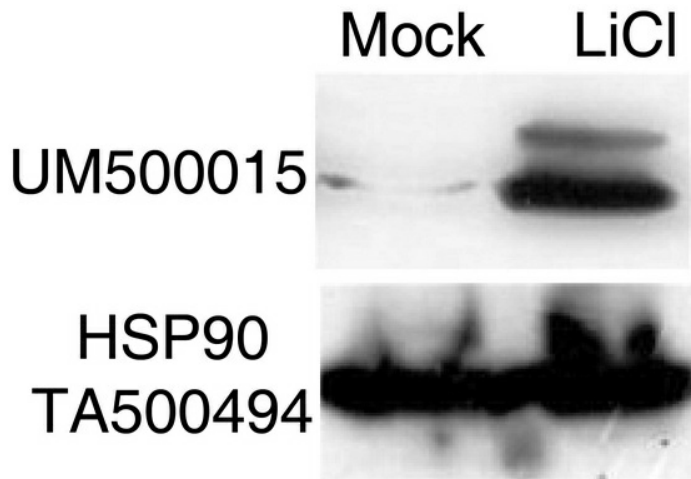
Flow cytometric Analysis of Hela cells, using anti-CTNNB1 antibody (UM500015), (Red), compared to a nonspecific negative control antibody, (Blue).



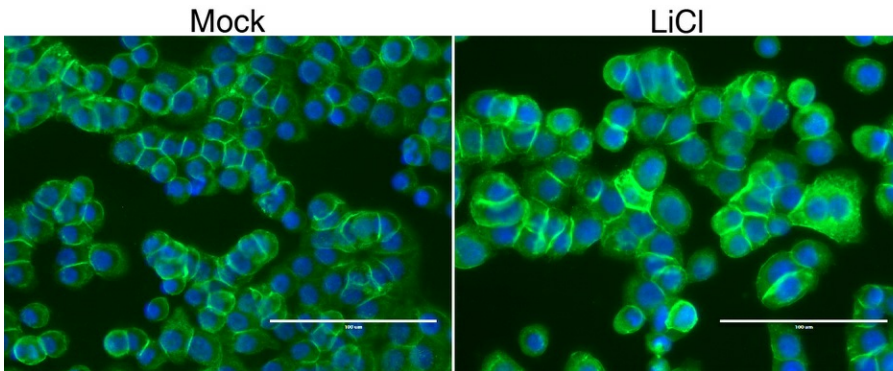
OriGene overexpression protein microarray chip was immunostained with UltraMAB anti-beta-catenin mouse monoclonal antibody (Clone UMAB15). The positive reactive proteins are highlighted with two red arrows in the enlarged subarray. All the positive controls spotted in this subarray are also labeled for clarification. These data show that UltraMAB anti-beta-catenin (Clone UMAB15) very specifically recognizes beta-catenin antigen on OriGene protein microarray chip.



Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-CTNNB1 monoclonal antibody.

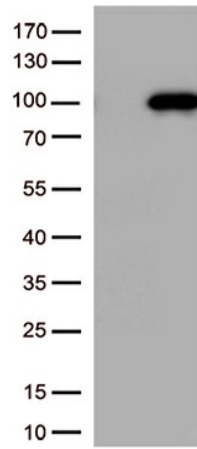


Western analysis of HEK293T cells without treatment or treated with 30mM LiCl for 16 hours, using anti-beta-catenin antibody (clone UMAB15). Anti-HSP90 ([TA500494]) was used as internal loading control.



Immunofluorescent image of HT-29 cells without treatment (left) or treated with 30mM LiCl (right), using anti-beta-catenin antibody (Clone UMAB15). Nuclei were labeled by Hoechst 33242 (blue).

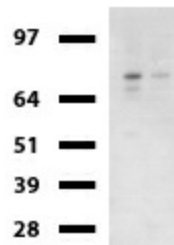




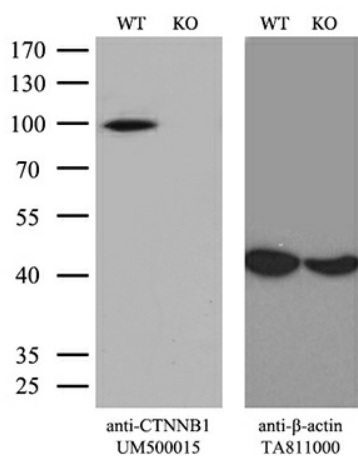
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CTNNB1 ([RC208947], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CTNNB1 (1:500).



Western Blot analysis of 10 different human tissue lysates (10ug) by using Anti-β-Catenin monoclonal antibody (Clone UMAB15, 1:500)



Western blot of mouse tissue lysates (20ug) from Uterus and Ovary. Primary antibody dilution: 1:500. Secondary antibody dilution: Mouse TrueBlot® Ultra (1:1000).



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and CTNNB1-Knockout HeLa cells (KO, Cat# [LC810056]) were separated by SDS-PAGE and immunoblotted with anti-CTNNB1 monoclonal antibody UM500015. Then the blotted membrane was stripped and reprobed with anti-β-actin antibody ([TA811000]) as a loading control (1:500).