Technical Data Sheet

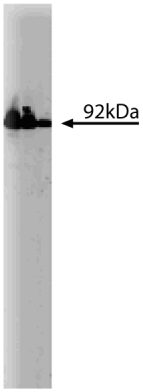
Purified Mouse Anti-β-Catenin

Product Information

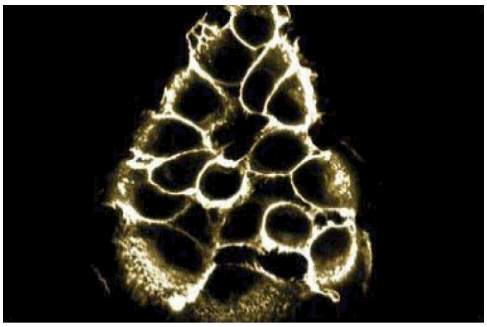
Material Number:	**610154**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	14/Beta-Catenin
Immunogen:	Mouse β-Catenin aa. 571-781
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog, Chicken
Target MW:	92 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The 14/Beta-Catenin monoclonal antibody specifically binds to Beta-Catenin (β-Catenin). β-Catenin is a 92 kDa protein that binds to the cytoplasmic tail of E-Cadherin. The cadherins, transmembrane adhesion molecules, are found with catenins at adherens junctions (zonula adherens). Deletions in the cytoplasmic domain of E-Cadherin which eliminate catenin binding also result in a loss of cell adhesion, indicating that this binding is essential for E-Cadherin function. Although the α- and β-Catenins have been cloned, very little is known about their biochemical roles. However a link between β-Catenin and colon cancer has been described. β-Catenin was found to co-immunoprecipitate with the APC tumor suppressor protein in human colorectal tumor cell lines, as well as in human kidney 293 cells. E-Cadherin, however, was not detectable in these complexes. Thus the APC-Catenin complex may be affecting the transmission of contact inhibition signals and/or the regulation of cell adhesion.



Western blot analysis of β-Catenin on HeLa cell lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the Mouse Anti- β-Catenin antibody.*



Immunofluorescent staining of A431 cell line with the Anti- β-Catenin antibody.

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Eger A, Stockinger A, Schaffhauser B, Beug H, Foisner R. Epithelial mesenchymal transition by c-Fos estrogen receptor activation involves nuclear translocation of beta-catenin and upregulation of beta-catenin/lymphoid enhancer binding factor-1 transcriptional activity. *J Cell Biol.* 2000; 148(1):173-187. (Clone-specific: Electron microscopy, Immunofluorescence, Immunoprecipitation, Western blot)

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Lee MS, D'Amour KA, Papkoff J. A yeast model system for functional analysis of beta-catenin signaling. *J Cell Biol.* 2002; 158(6):1067-1078. (Clone-specific: Immunofluorescence, Immunoprecipitation, Western blot)

Ozawa M, Ringwald M, Kemler R. Uvomorulin-catenin complex formation is regulated by a specific domain in the cytoplasmic region of the cell adhesion molecule. *Proc Natl Acad Sci U S A.* 1990; 87(11):4246-4250. (Biology)

Persad S, Troussard AA, McPhee TR, Mulholland DJ, Dedhar S. Tumor suppressor PTEN inhibits nuclear accumulation of beta-catenin and T cell/lymphoid enhancer factor 1-mediated transcriptional activation. *J Cell Biol.* 2001; 153(6):1161-1173. (Clone-specific: Gel shift, Immunofluorescence, Immunoprecipitation, Western blot)

Tateishi K, Omata M, Tanaka K, Chiba T. The NEDD8 system is essential for cell cycle progression and morphogenetic pathway in mice. *J Cell Biol.* 2001; 155(4):571-579. (Clone-specific: Immunofluorescence, Immunohistochemistry)

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