Technical Data Sheet

PE Mouse anti-p120 Catenin (pT916)

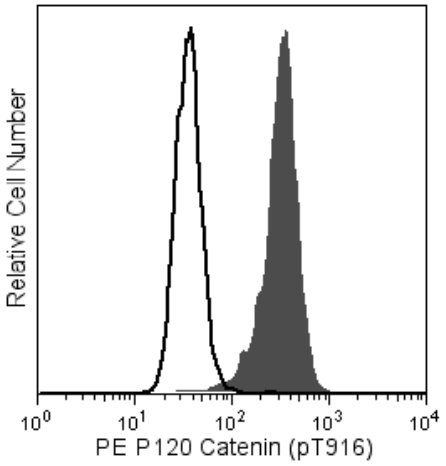
Product Information

Material Number:	**558637**
Size:	50 tests
Vol. per Test:	20 µl
Clone:	1/Catenin
Immunogen:	Phosphorylated Human p120 Catenin peptide
Isotype:	Mouse (BALB/c) IgG2b, κ
Reactivity:	Tested: Human Predicted: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The membrane associated protein pp120 Src substrate (p120 catenin, p120cas) was identified as a tyrosine kinase substrate that is phosphorylated in Src-transformed cells. It shares structural similarity with the Drosophila Armadillo protein and the vertebrate β-catenin and γ-catenin proteins in its 42-amino acid Arm domain. p120 catenin is localized to the E-Cadherin/catenin cell adhesion complex. Like β- and γ-catenin, p120 catenin directly associates with the cytoplasmic C-terminus of E-Cadherin via its Arm domain. It exists as four isoforms that range in size from 90 to 115 kDa. Expression of these isoforms is heterogeneous in human carcinomas, suggesting that altered expression contributes to malignancy. Phosphorylation of multiple serine (S252, S268, S288, and S879), and threonine (T310 and T916) residues in p120 catenin may regulate its activity. The S879 residue is phosphorylated after PKC activation, while the S268 site is dephosphorylated after PKC activation. The latter residue is phosphorylated in vitro by p160 Rock. S252 and T310 residues are phosphorylated in vitro by GSK3b. Thus, p120 catenin function may be regulated in a complex manner through both serine and threonine phosphorylation.

The 1/Catenin monoclonal antibody recognizes the phosphorylated T916 in the carboxy-terminal tail of human p120 catenin. The orthologous phosphorylation site in mouse p120 catenin is T889.



Analysis of p120 Catenin (pT916) in human vascular endothelium. *After serum starvation overnight, EA-hy 926 cells (Edgell, McDonald, Graham, 1983)) were either stimulated with 50 nM calyculin A (Calbiochem Cat. No. 208851, shaded histogram) for 30 minutes at 37°C or unstimulated (open histogram). The cells were fixed (BD Cytofix™ buffer, Cat. No. 554655) for 10 minutes at 37°C, then permeabilized (BD™ Phosflow Perm Buffer III, Cat. No. 558050) on ice for at least 30 minutes, and then stained with PE Mouse anti-p120 Catenin (pT916). Flow cytometry was performed on a BD™ FACSCalibur flow cytometry system.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
558050	Perm Buffer III	125 ml	(none)

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Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
2. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
3. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Edgell C-JS, McDonald CC, Graham JB. Permanent cell line expressing human factor VIII-related antigen established by hybridization. *Proc Natl Acad Sci U S A.* 1983; 80:3734-3737. (Methodology: Controls)

Reynolds AB, Roczniak-Ferguson A. Emerging roles for p120-catenin in cell adhesion and cancer. *Oncogene.* 2004; 23:7947-7956. (Biology)

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