Technical Data Sheet

Purified Mouse Anti-p120 Catenin (pY280)

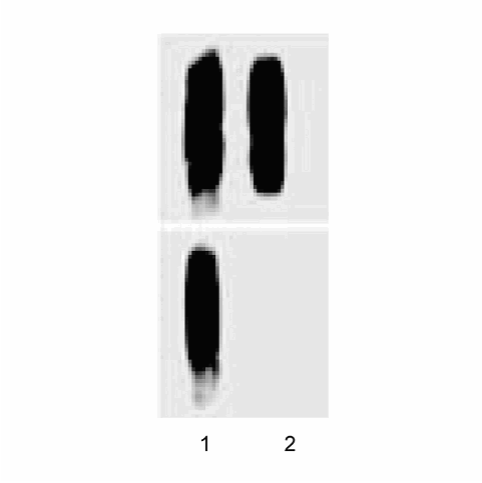
Product Information

Material Number:	**612538**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	18/P120 Catenin (PY280)
Immunogen:	Human p120 Catenin (pY280) aa. 1-911
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	120 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

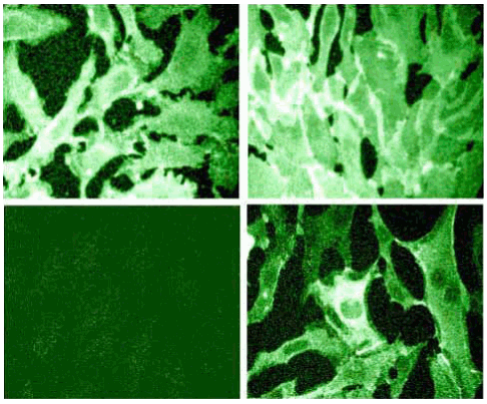
Description

The membrane associated protein pp120 Src substrate (p120 Catenin, p120cas) was identified as a tyrosine kinase substrate that is phosphorylated in Src transformed cells or in response to growth factor stimulation. It shares structural similarity with the *Drosophila* Armadillo protein and the vertebrate β-catenin and γ-catenin proteins. This similarity is evidenced by its characteristic Arm domain that is composed of 42-amino acid motif repeats. In the cell, p120 Catenin is localized to the E-Cadherin/catenins cell adhesion complex. Like β- and γ-catenin, p120 Catenin directly associates with the cytoplasmic C-terminus of E-Cadherin via its Arm domain and may similarly interact with other Cadherins. It exists as four isoforms that range in size from 90-115kDa. Expression of these isoforms is heterogeneous in human carcinomas, suggesting that altered pp120 expression contributes to malignancy due to loss of functional cell adhesions. Multiple tyrosine residues (Y96, Y112, Y228, Y280, Y257, Y291, Y296, and Y302) in p120 Catenin are phosphorylated by Src and these phosphorylations may facilitate interaction with PTP1C/SHP-1 in response to EGF stimulation. Thus, p120 Catenin is an Arm domain protein that interacts with both cell adhesion molecules, such as cadherins and cell signaling molecules, such as PTP1C.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Human endothelial cells were treated with 1 mM pervanadate for 15 minutes at 37°C and then either left untreated (lane 1) or treated (lane 2) with 50 µg/ml of alkaline phosphatase for 30 minutes at 37°C. *The top panel was probed with p120 Catenin (Cat. No. 610133) and the bottom was probed with p120 Catenin (pY280) (Cat. No. 612538).*



Eahy cells were serum starved and treated with pervanadate (1mM) for 20 minutes (right panels), then fixed in 3.75% formaldehyde with 0.2% Triton X-100. *Immunofluorescent staining was performed with p120 Catenin (Cat. No. 610133, upper panels) and p120 Catenin (pY280) (Cat. No. 612538, lower panels).*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Mariner DJ, Anastasiadis P, Keilhack H, Bohmer FD, Wang J, Reynolds AB. Identification of Src phosphorylation sites in the catenin p120ctn. *J Biol Chem.* 2001; 276(30):28006-28013.(Biology)

Reynolds AB, Daniel J, McCrea PD, Wheelock MJ, Wu J, Zhang Z. Identification of a new catenin: the tyrosine kinase substrate p120cas associates with E-cadherin complexes. *Mol Cell Biol.* 1994; 14(12):8333-8342.(Biology)