Technical Data Sheet

FITC Mouse Anti-p120 Catenin

Product Information

Material Number: 610135

Alternate Name: pp120 (Src Substrate); p120cas

 $\begin{array}{lll} \textbf{Size:} & 50~\mu g \\ \textbf{Concentration:} & 250~\mu g/m l \\ \textbf{Clone:} & 98/pp120 \\ \end{array}$

Immunogen: Mouse pp120 aa. 326-632

 Isotype:
 Mouse IgG1

 Reactivity:
 QC Testing: Human

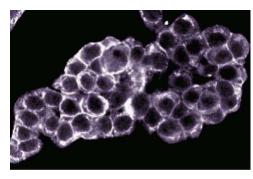
Tested in Development: Mouse, Rat, Chicken, Dog

Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium

azide.

Description

The membrane associated protein p120 Catenin (pp120 (Src substrate); 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 90-115 kDa. 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.



Immunofluorescence staining of A431 cells (Human epithelial carcinoma; ATCC CRL-1555).

Preparation and Storage

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

Application Notes

Application

| | L | Immunofluorescence | Routinely Tested |
|--|---|--------------------|------------------|
|--|---|--------------------|------------------|

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.

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- 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

Daniel JM, Reynolds AB. The tyrosine kinase substrate p120cas binds directly to E-cadherin but not to the adenomatous polyposis coli protein or alpha-catenin. Mol Cell Biol. 1995; 15(9):4819-4824.(Biology: Immunoprecipitation, Western blot)

Mo YY, Reynolds AB. Identification of murine p120 isoforms and heterogeneous expression of p120cas isoforms in human tumor cell lines. *Cancer Res.* 1996; 56(11):2633-2640.(Biology: Immunoprecipitation, Western blot)

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: Immunofluorescence, Immunoprecipitation, Western blot)

Shimazui T, Schalken JA, Giroldi LA, et al. Prognostic value of cadherin-associated molecules (alpha-, beta-, and gamma-catenins and p120cas) in bladder tumors. Cancer Res. 1996; 56(18):4154-4158.(Biology: Immunohistochemistry)

Xu X, Li WE, Huang GY, et al. Modulation of mouse neural crest cell motility by N-cadherin and connexin 43 gap junctions. *J Cell Biol.* 2001; 154(1):217-229. (Clone-specific: Immunofluorescence)

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