

## p120 (G-7): sc-373751



The Power to Question

## BACKGROUND

The catenins,  $\alpha$ ,  $\beta$  and  $\gamma$ , are proteins which bind to the highly conserved, intracellular cytoplasmic tail of E-cadherin. Together, the catenin/cadherin complexes play an important role mediating cellular adhesion.  $\alpha$ -catenin was initially described as an E-cadherin-associated protein and has been shown to associate with other members of the cadherin family, N-cadherin and P-cadherin.  $\beta$ -catenin associates with the cytoplasmic portion of E-cadherin which is necessary for the function of E-cadherin as an adhesion molecule.  $\beta$ -catenin has also been found in complexes with the tumor suppressor protein APC.  $\gamma$ -catenin, also known as plakoglobin, is a protein that binds with  $\alpha$ -catenin and N-cadherin. A related protein, p120, exhibits sequence homology with the catenins at four discrete domains. p120 not only serves as a substrate for Src, but is also found in E-cadherin complexes containing catenins.

## REFERENCES

1. Reynolds, A.B., et al. 1992. p120, a novel substrate of protein tyrosine kinase receptors and of p60v-Src, is related to cadherin-binding factors  $\beta$ -catenin, plakoglobin and armadillo. *Oncogene* 7: 2439-2445.
2. Aghib, D.F., et al. 1995. The E-cadherin complex contains the Src substrate p120. *Exp. Cell Res.* 218: 359-369.
3. Knudsen, K.A., et al. 1995. Interaction of  $\alpha$ -actinin with the cadherin/catenin cell-cell adhesion complex via  $\alpha$ -catenin. *J. Cell Biol.* 130: 67-77.
4. Breen, E., et al. 1995. Role of the E-cadherin/ $\alpha$ -catenin complex in modulating cell-cell and cell-matrix adhesive properties of invasive colon carcinoma cells. *Ann. Surg. Oncol.* 2: 378-385.

## CHROMOSOMAL LOCATION

Genetic locus: CTNND1 (human) mapping to 11q12.1; Ctnnd1 (mouse) mapping to 2 D.

## SOURCE

p120 (G-7) is a mouse monoclonal antibody raised against amino acids 41-130 mapping near the N-terminus of p120 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p120 (G-7) is available conjugated to agarose (sc-373751 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373751 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373751 PE), fluorescein (sc-373751 FITC), Alexa Fluor® 488 (sc-373751 AF488), Alexa Fluor® 546 (sc-373751 AF546), Alexa Fluor® 594 (sc-373751 AF594) or Alexa Fluor® 647 (sc-373751 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373751 AF680) or Alexa Fluor® 790 (sc-373751 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

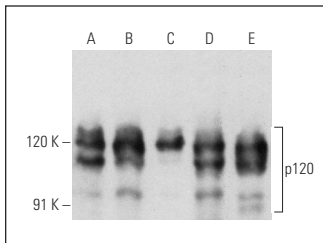
p120 (G-7) is recommended for detection of p120 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p120 (G-7) is also recommended for detection of p120 in additional species, including equine.

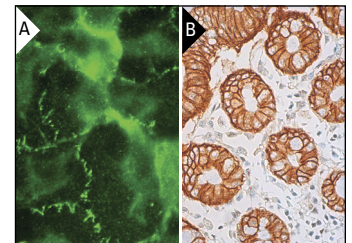
Suitable for use as control antibody for p120 siRNA (h): sc-36139, p120 siRNA (m): sc-36140, p120 siRNA (r): sc-106992, p120 shRNA Plasmid (h): sc-36139-SH, p120 shRNA Plasmid (m): sc-36140-SH, p120 shRNA Plasmid (r): sc-106992-SH, p120 shRNA (h) Lentiviral Particles: sc-36139-V, p120 shRNA (m) Lentiviral Particles: sc-36140-V and p120 shRNA (r) Lentiviral Particles: sc-106992-V.

Molecular Weight of p120: 100-120 kDa.

## DATA



p120 (G-7): sc-373751. Western blot analysis of p120 expression in NRK (A), PC-12 (B), A-10 (C) and 3611-RF (D) whole cell lysates and rat brain tissue extract (E).



p120 (G-7): sc-373751. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing membrane and cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

1. Padmanabhan, R. and Taneyhill, L.A. 2015. Cadherin-6B undergoes macropinocytosis and clathrin-mediated endocytosis during cranial neural crest cell EMT. *J. Cell Sci.* 128: 1773-1786.
2. Harari, E., et al. 2018. Direct targeting of the mTOR (mammalian target of rapamycin) kinase improves endothelial permeability in drug-eluting stents-brief report. *Arterioscler. Thromb. Vasc. Biol.* 38: 2217-2224.
3. Méant, A., et al. 2020. Proteomic analysis reveals a role for RSK in p120-catenin phosphorylation and melanoma cell-cell adhesion. *Mol. Cell. Proteomics* 19: 50-64.
4. Wang, Y., et al. 2021. Ruscogenin attenuates sepsis-induced acute lung injury and pulmonary endothelial barrier dysfunction via TLR4/Src/p120-catenin/VE-cadherin signalling pathway. *J. Pharm. Pharmacol.* 73: 893-900.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.