SANTA CRUZ BIOTECHNOLOGY, INC.

p120 (6H11): sc-23873

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The catenins, α, β and γ, 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. α-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. B-catenin associates with the cytoplasmic portion of E-cadherin which is necessary for the function of E-cadherin as an adhesion molecule. β-catenin has also been found in complexes with the tumor suppressor protein APC. γ-catenin, also known as plakoglobin, is a protein that binds with α-catenin and N-cadherin. A related protein, p120, exhibits sequence homology with the catenins at four discreet domains. p120 not only serves as a substrate for Src, but is also found in E-cadherin complexes containing catenins.

CHROMOSOMAL LOCATION

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

SOURCE

p120 (6H11) is a mouse monoclonal antibody raised against amino acids 8-349 of mouse p120.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p120 (6H11) is available conjugated to agarose (sc-23873 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23873 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23873 PE), fluorescein (sc-23873 FITC), Alexa Fluor® 488 (sc-23873 AF488), Alexa Fluor® 546 (sc-23873 AF546), Alexa Fluor® 594 (sc-23873 AF594) or Alexa Fluor® 647 (sc-23873 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23873 AF680) or Alexa Fluor® 790 (sc-23873 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

p120 (6H11) is recommended for detection of p120 of mouse, rat, human, canine and avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:100) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

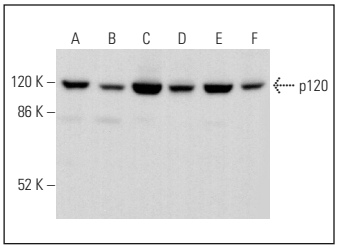
Molecular Weight of p120: 100-120 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, F9 cell lysate: sc-2245 or HeLa whole cell lysate: sc-2200.

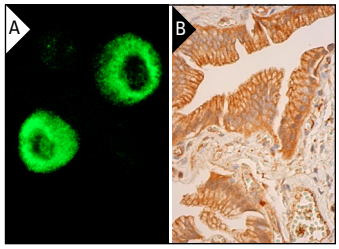
STORAGE

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

DATA



p120 (6H11): sc-23873. Western blot analysis of p120 expression in PC-12 (**A**), EOC 20 (**B**), F9 (**C**), KNRK (**D**), HeLa (**E**) and A-431 (**F**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



p120 (6H11): sc-23873. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Wang, J.J., et al. 2006. The antitumor effect of a novel differentiation inducer, 2, 2-Bis (4-(4-amino-3-hydroxyphenoxy) phenyl) adamantane (DPA), in combinatory therapy on human colon cancer. Int. J. Oncol. 28: 1003-1012.
2. Zanucco, E., et al. 2011. Expression of B-RAF V600E in type II pneumocytes causes abnormalities in alveolar formation, airspace enlargement and tumor formation in mice. PLoS ONE 6: e29093.
3. Hong, J.Y., et al. 2012. Down's-syndrome-related kinase Dyrk1A modulates the p120-catenin-Kaiso trajectory of the Wnt signaling pathway. J. Cell Sci. 125: 561-569.
4. Fan, C., et al. 2015. Zbed3 contributes to malignant phenotype of lung cancer via regulating β-catenin and p120-catenin 1. Mol. Carcinog. 54: E138-E147.
5. Sroka, R., et al. 2016. Cortactin is a scaffolding platform for the E-cadherin adhesion complex and is regulated by protein kinase D1 phosphorylation. J. Cell Sci. 129: 2416-2429.
6. Mruk, D.D., et al. 2017. Lonidamine-ethyl ester-mediated remodelling of the Sertoli cell cytoskeleton induces phosphorylation of plakoglobin and promotes its interaction with α-catenin at the blood-testis barrier. Reprod. Fertil. Dev. 29: 998-1011.
7. Shen, M., et al. 2018. Cell-specific functions of ADAM17 regulate the progression of thoracic aortic aneurysm. Circ. Res. 123: 372-388.
8. Venhuizen, J.H., et al. 2019. Differential expression of p120-catenin 1 and 3 isoforms in epithelial tissues. Sci. Rep. 9: 90.

RESEARCH USE

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