SANTA CRUZ BIOTECHNOLOGY, INC.

p120 (A-8): sc-390327

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.

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 β-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 α-actinin with the cadherin/catenin cell-cell adhesion complex via α-catenin. J. Cell Biol. 130: 67-77.
4. Breen, E., et al. 1995. Role of the E-cadherin/α-catenin complex in modulating cell-cell and cell-matrix adhesive properties of invasive colon carcinoma cells. Ann. Surg. Oncol. 2: 378-385.
5. Pierceall, W.E., et al. 1995. Frequent alterations in E-cadherin and α- and β-catenin expression in human breast cancer cell lines. Oncogene 11: 1319-1326.
6. Ozawa, M., et al. 1995. Cloning of an alternative form of plakoglobin (γ-catenin) lacking the fourth armadillo repeat. J. Biochem. 118: 836-840.

CHROMOSOMAL LOCATION

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

SOURCE

p120 (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 885-902 near the C-terminus of p120 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390327 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

p120 (A-8) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

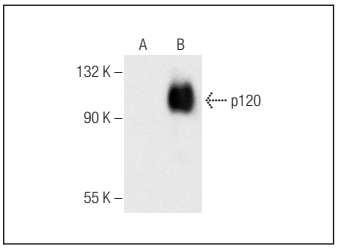
Molecular Weight of p120: 100-120 kDa.

Positive Controls: p120 (h): 293 Lysate: sc-112342.

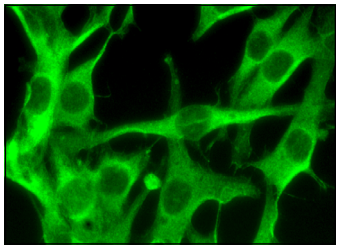
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



p120 (A-8): sc-390327. Western blot analysis of p120 expression in non-transfected: sc-110760 (**A**) and human p120 transfected: sc-112342 (**B**) 293 whole cell lysates.



p120 (A-8): sc-390327. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

STORAGE

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

CONJUGATES

See **p120 (6H11): sc-23873** for p120 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.