

p120 (15D2): sc-23872



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. β -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 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 β -catenin, plakoglobin and armadillo. *Oncogene* 7: 2439-2445.
2. Aghib, D.F. and McCrea, P.D. 1995. The E-cadherin complex contains the Src substrate p120. *Exp. Cell Res.* 218: 359-369.
3. 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.

CHROMOSOMAL LOCATION

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

SOURCE

p120 (15D2) is a mouse monoclonal antibody raised against amino acids 790-911 of p120 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p120 (15D2) is available conjugated to agarose (sc-23872 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23872 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23872 PE), fluorescein (sc-23872 FITC), Alexa Fluor® 488 (sc-23872 AF488), Alexa Fluor® 546 (sc-23872 AF546), Alexa Fluor® 594 (sc-23872 AF594) or Alexa Fluor® 647 (sc-23872 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23872 AF680) or Alexa Fluor® 790 (sc-23872 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

p120 (15D2) is recommended for detection of p120 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

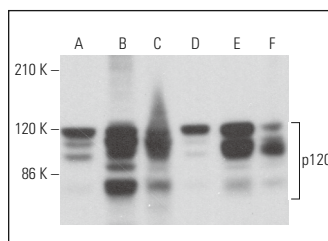
p120 (15D2) is also recommended for detection of p120 in additional species, including canine.

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.

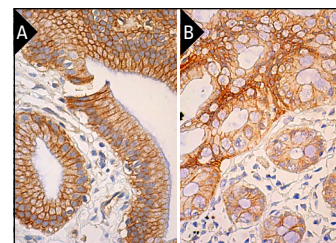
Molecular Weight of p120: 100-120 kDa.

Positive Controls: F9 cell lysate: sc-2245, A-10 cell lysate: sc-3806 or C2C12 whole cell lysate: sc-364188.

DATA



p120 (15D2): sc-23872. Western blot analysis of p120 expression in F9 (A), NCI-H292 (B), T-47D (C), IMR-32 (D), C2C12 (E) and A-10 (F) whole cell lysates.



p120 (15D2): sc-23872. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder (A) and human rectum (B) tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Mastracci, T.L., et al. 2005. E-cadherin alterations in atypical lobular hyperplasia and lobular carcinoma *in situ* of the breast. *Mod. Pathol.* 18: 741-751.
2. Mani, A.M., et al. 2018. Cholesterol crystals increase vascular permeability by inactivating SHP2 and disrupting adherens junctions. *Free Radic. Biol. Med.* 123: 72-84.
3. Jedrusik, N., et al. 2019. Gelatin nonwovens-based epithelial morphogenesis involves a signaling axis comprising EGF-receptor, MAP kinases ERK 1/2, and β 1 Integrin. *J. Biomed. Mater. Res. A* 107: 663-677.
4. Sebastián, I., et al. 2021. Disassembly of the apical junctional complex during the transmigration of *Leptospira interrogans* across polarized renal proximal tubule epithelial cells. *Cell. Microbiol.* 23: e13343.

RESEARCH USE

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