SANTA CRUZ BIOTECHNOLOGY, INC.

p120 (15D2): sc-23872

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

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 (15D2) is available conjugated to agarose (sc-23872 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23872 HRP), 200 µg/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 µg/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 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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 µg per 100-500 µg 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.

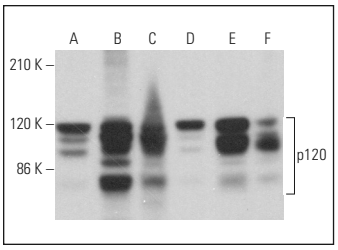
Suitable for use as control antibody for p120 siRNA (h): sc-36139, p120 siRNA (m): sc-36140, p120 siRNA (r): sc-106992, p120 shRNA Plasmid (h): sc-36139-SH, p120 shRNA Plasmid (m): sc-36140-SH, p120 shRNA Plasmid (r): sc-106992-SH, p120 shRNA (h) Lentiviral Particles: sc-36139-V, p120 shRNA (m) Lentiviral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

Molecular Weight of p120: 100-120 kDa.

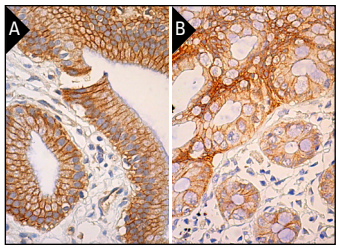
STORAGE

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

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. Rakha, E.A., et al. 2010. Clinical and biological significance of E-cadherin protein expression in invasive lobular carcinoma of the breast. Am. J. Surg. Pathol. 34: 1472-1479.
3. Ucvet, A., et al. 2011. Prognostic value of epithelial growth factor receptor, vascular endothelial growth factor, E-cadherin, and p120 catenin in resected non-small cell lung carcinoma. Arch. Bronconeumol. 47: 397-402.
4. Zengel, B., et al. 2015. Comparison of the clinicopathological features of invasive ductal, invasive lobular, and mixed (invasive ductal + invasive lobular) carcinoma of the breast. Breast Cancer 22: 374-381.
5. Polusani, S.R., et al. 2016. Cell coupling mediated by connexin 26 selectively contributes to reduced adhesivity and increased migration. J. Cell Sci. 129: 4399-4410.
6. Chattopadhyay, R., et al. 2017. Resolvin D1 via prevention of Ros-mediated SHP2 inactivation protects endothelial adherens junction integrity and barrier function. Redox Biol. 12: 438-455.
7. 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.
8. Jedrusik, N., et al. 2019. Gelatin nonwovens-based epithelial morphogenesis involves a signaling axis comprising EGF-receptor, MAP kinases ERK 1/2, and β1 Integrin. J. Biomed. Mater. Res. A 107: 663-677.
9. 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.