

p-p120 (pY280.18): sc-136016

BACKGROUND

The catenins, α , β and γ , are proteins which bind to the highly conserved, intra-cellular cytoplasmic tail of E-cadherin. Together, the catenin/cadherin complexes play an important role mediating cellular adhesion. A related protein, p120 [catenin (cadherin associated protein), δ 1], also known as cadherin-associated Src substrate, Ctnnd1, Cats or Ctnnd, is a 968 amino acid tyrosine kinase substrate belonging to the β -catenin family. Expressed in vascular endothelium, p120 localizes to the cytoplasm, nucleus and cell membrane. p120 plays a role in ligand-induced receptor signaling through EGF, PDGF, CSF-1 and Neu receptors, and exhibits sequence homology with the catenins at four discrete domains. p120 serves as a substrate for Src and is found in E-cadherin complexes containing catenins. p120 has four major isoforms, each of which has additional isoforms due to alternative splicing events. p120 contains ten ARM repeats and is phosphorylated following translation.

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. Reynolds, A.B., et al. 1996. The gene encoding p120^{cas}, a novel catenin, localizes on human chromosome 11q11 (CTNND) and mouse chromosome 2 (Cats). *Genomics* 31: 127-129.
3. Dillon, D.A., et al. 1998. The expression of p120^{ctn} protein in breast cancer is independent of α - and β -catenin and E-cadherin. *Am. J. Pathol.* 152: 75-82.
4. Keirsebilck, A., et al. 1998. Molecular cloning of the human p120^{ctn} catenin gene (CTNND1): expression of multiple alternatively spliced isoforms. *Genomics* 50: 129-146.
5. Bonne, S., et al. 1998. Chromosomal mapping of human armadillo genes belonging to the p120^{ctn}/plakophilin subfamily. *Genomics* 51: 452-454.
6. Perez-Moreno, M., et al. 2006. p120-catenin mediates inflammatory responses in the skin. *Cell* 124: 631-644.
7. Wildenberg, G.A., et al. 2006. p120-catenin and p190RhoGAP regulate cell-cell adhesion by coordinating antagonism between Rac and Rho. *Cell* 127: 1027-1039.

CHROMOSOMAL LOCATION

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

SOURCE

p-p120 (pY280.18) is a mouse monoclonal antibody raised against a short amino acid sequence containing Tyr 280 phosphorylated p120 of human 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.

APPLICATIONS

p-p120 (pY280.18) is recommended for detection of Tyr 280 phosphorylated 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)] and immunofluorescence (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.

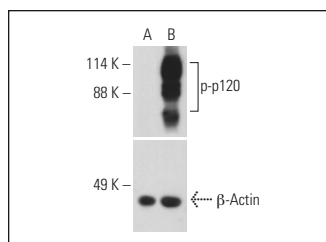
Molecular Weight of p-p120: 100-120 kDa.

Positive Controls: ECV304 + pervanadate cell lysate: sc-24672 or A-431 + Calyculin A cell lysate: sc-2260.

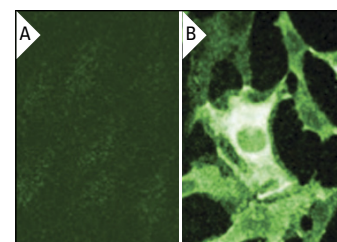
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



p-p120 (pY280.18): sc-136016. Western blot analysis of p-p120 phosphorylation in A-431 (A) and pervanadate-treated A-431 (B) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102. β -Actin (C4): sc-47778 used as loading control.



p-p120 (pY280.18): sc-136016. Immunofluorescence staining of formaldehyde-fixed untreated (A) and pervanadate-treated (B) serum-starved Eahy cells showing nuclear and cytoplasmic localization.

STORAGE

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

RESEARCH USE

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