

Plectin (H-80): sc-28267

BACKGROUND

Plectin is an abundant cytoskeletal protein that is involved in cytoplasm stabilization. Plectin has been shown to crosslink intermediate filaments to microtubules and microfilaments, and to anchor intermediate filaments to the plasma and nuclear membranes. Plectin binds both Lamin B and vimentin, and this binding is regulated by a variety of protein kinases. Phosphorylation by PKA or PKC results in decreased binding to Lamin B, and phosphorylation by PKA enhances the plectin-vimentin interactions. Plectin is also a substrate for p34cdc2 kinase. Several alternative splice isoforms of plectin are known to exist. Mutations in human plectin are known to cause epidermolysis bullosa simplex with muscular dystrophy (EBS-MD).

REFERENCES

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3. Liu, C.G., Maercker, C., Castanon, M.J., Hauptmann, R. and Wiche, G. 1996. Human plectin: organization of the gene, sequence analysis, and chromosome localization (8q24). *Proc. Natl. Acad. Sci. USA* 93: 4278-4283.
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6. Andra, K., Lassmann, H., Bittner, R., Shorny, S., Fassler, R., Propst, F. and Wiche, G. 1997. Targeted inactivation of plectin reveals essential function in maintaining the integrity of skin, muscle, and heart cytoarchitecture. *Genes Dev.* 11: 3143-3156.

CHROMOSOMAL LOCATION

Genetic locus: PLEC1 (human) mapping to 8q24.3; Plect1 (mouse) mapping to 15 D3.

SOURCE

Plectin (H-80) is a rabbit polyclonal antibody raised against amino acids 4605-4684 mapping at the C-terminus of Plectin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Plectin (H-80) is recommended for detection of Plectin 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Plectin (H-80) is also recommended for detection of Plectin in additional species, including equine and canine.

Suitable for use as control antibody for Plectin siRNA (h): sc-29453, Plectin siRNA (m): sc-36276, Plectin shRNA Plasmid (h): sc-29453-SH, Plectin shRNA Plasmid (m): sc-36276-SH, Plectin shRNA (h) Lentiviral Particles: sc-29453-V and Plectin shRNA (m) Lentiviral Particles: sc-36276-V.

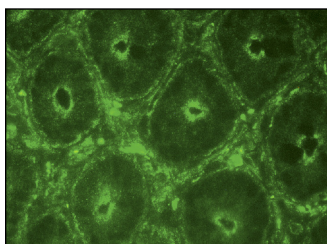
Molecular Weight of Plectin: 500 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, or rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Plectin (H-80): sc-28267. Immunofluorescence staining of normal mouse intestine frozen section showing cytoskeletal staining.

RESEARCH USE

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



Try **Plectin (10F6): sc-33649** or **Plectin (7A8): sc-58835**, our highly recommended monoclonal alternatives to Plectin (H-80). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Plectin (10F6): sc-33649**.