

Plectin (10F6): sc-33649

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 p34^{Cdc2} 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).

CHROMOSOMAL LOCATION

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

SOURCE

Plectin (10F6) is a mouse monoclonal antibody raised against full length glioma C6 cell Plectin of rat origin.

PRODUCT

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

Plectin (10F6) is available conjugated to agarose (sc-33649 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-33649 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-33649 PE), fluorescein (sc-33649 FITC), Alexa Fluor[®] 488 (sc-33649 AF488), Alexa Fluor[®] 546 (sc-33649 AF546), Alexa Fluor[®] 594 (sc-33649 AF594) or Alexa Fluor[®] 647 (sc-33649 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-33649 AF680) or Alexa Fluor[®] 790 (sc-33649 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Plectin (10F6) 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), 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).

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: A549 cell lysate: sc-2413, RT-4 whole cell lysate: sc-364257 or RAW 264.7 whole cell lysate: sc-2211.

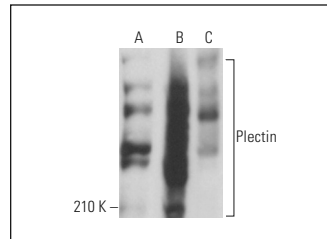
RESEARCH USE

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

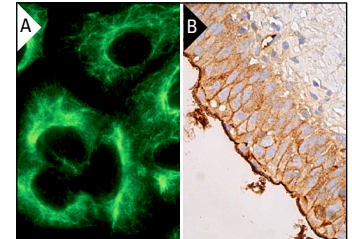
STORAGE

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

DATA



Plectin (10F6): sc-33649. Western blot analysis of Plectin expression in A549 (A), RT-4 (B) and RAW 264.7 (C) whole cell lysates.



Plectin (10F6): sc-33649. Immunofluorescence staining of methanol-fixed A549 cells showing cytoskeletal localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and membrane staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

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- Xu, R., et al. 2015. Deletion of Galgt2 (B4Galnt2) reduces muscle growth in response to acute injury and increases muscle inflammation and pathology in dystrophin-deficient mice. *Am. J. Pathol.* 185: 2668-2684.
- Sabbir, M.G., et al. 2016. Dlc1 interaction with non-muscle myosin heavy chain II-A (Myh9) and Rac1 activation. *Biol. Open* 5: 452-460.
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- Ehyai, S., et al. 2018. FMRP recruitment of β -catenin to the translation pre-initiation complex represses translation. *EMBO Rep.* pii: e45536.
- Suttitheptumrong, A., et al. 2018. Plectin is required for *trans*-endothelial permeability: A model of plectin dysfunction in human endothelial cells after TNF- α treatment and dengue virus infection. *Proteomics*. E-published.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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