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Plectin-1 Antibody

Store at -20C
#2863

For Research Use Only. Not for Use in Diagnostic Procedures.

| | | | | | | |
|---------------------------|----------------------------|-----------------------------------|-----------------------------|----------------------------------|-------------------------------|--------------------------------|
| Applications: W | Reactivity: H Mk | Sensitivity: Endogenous | MW (kDa): 400-500 | Source/Isotype: Rabbit | UniProt ID: #Q15149 | Entrez-Gene Id: 5339 |
|---------------------------|----------------------------|-----------------------------------|-----------------------------|----------------------------------|-------------------------------|--------------------------------|

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Plectin-1 Antibody detects endogenous levels of total plectin-1 protein. The antibody is expected to cross-react with all isoforms of plectin-1 based on the sequence of the immunogenic peptide.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the central sequence of human plectin-1.

Background

Plectin is a large, widely expressed protein that crosslinks the intermediate filament and actin cytoskeleton, mechanically stabilizing cells and tissues. Plectin also plays a role in the regulation of actin dynamics and acts as a scaffold for signaling molecules (1). Plectin is important in the stabilization of hemidesmosomes, crosslinking them to the intermediate filament network. Research studies have shown that mutations in plectin and other genes coding for hemidesmosomal proteins can cause epidermolysis bullosa, a condition manifested by fragile skin and frequent blistering (1,2). Plectin modulates signals to PKC through binding and sequestration of RACK1, the receptor for activated C kinase 1 (3,4). Plectin is also involved in the regulation of cytokeratin architecture and cell stress response (4), signaling through the chemokine receptor CXCR4 (5) and regulation of AMP-activated protein kinase (AMPK) activity and signaling in mouse myotubes (6).

Background References

1. Wiche, G. (1998) *J Cell Sci* 111 (Pt 17), 2477-86.
2. Pfindner, E. et al. (2005) *Exp Dermatol* 14, 241-9.
3. Osmanagic-Myers, S. and Wiche, G. (2004) *J Biol Chem* 279, 18701-10.
4. Osmanagic-Myers, S. et al. (2006) *J Cell Biol* 174, 557-68.
5. Ding, Y. et al. (2008) *Exp Cell Res* 314, 590-602.
6. Gregor, M. et al. (2006) *J Cell Sci* 119, 1864-75.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **Mk:** Monkey

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