10320 Camino Santa Fe, Suite G
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Anti-Plectin Picoband Antibody

Catalog # ABO12120

Specification

Anti-Plectin Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q15149
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Plectin(PLEC) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Plectin Picoband Antibody - Additional Information

Gene ID 5339

Other Names
Plectin, PCN, PLTN, Hemidesmosomal protein 1, HD1, Plectin-1, PLEC, PLEC1

Calculated MW
531791 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization
Cytoplasm, cytoskeleton . Cell junction, hemidesmosome .

Tissue Specificity
Widely expressed with highest levels in muscle, heart, placenta and spinal cord.

Protein Name
Plectin

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human Plectin (2644-2671aa RFIEQEKAKLEQLFQDEVAKAQQLREEQ), different from the related mouse sequence by one amino acid, and from the related rat sequence by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the plakin or cytolinker family.

Anti-Plectin Picoband Antibody - Protein Information

Name PLEC

Synonyms PLEC1

Function
Interlinks intermediate filaments with microtubules and microfilaments and anchors intermediate filaments to desmosomes or hemidesmosomes. Could also bind muscle proteins such as actin to membrane complexes in muscle. May be involved not only in the filaments network, but also in the regulation of their dynamics. Structural component of muscle. Isoform 9 plays a major role in the maintenance of myofiber integrity.

Cellular Location
Cytoplasm, cytoskeleton. Cell junction, hemidesmosome

Tissue Location
Widely expressed with highest levels in muscle, heart, placenta and spinal cord

Anti-Plectin Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Plectin Picoband Antibody - Images

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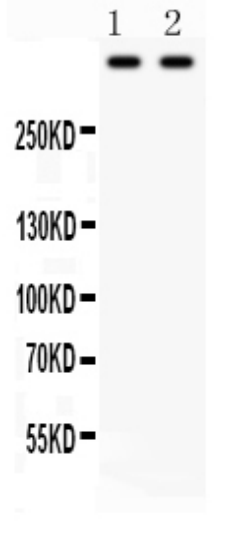
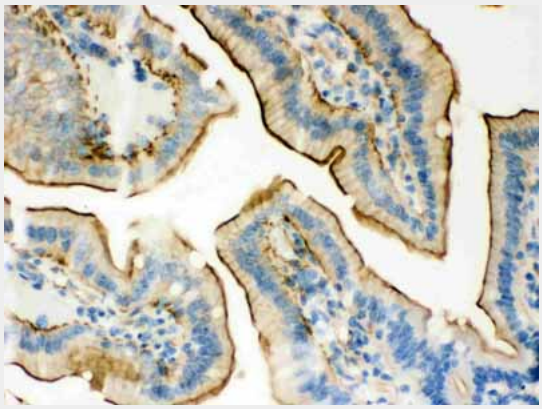
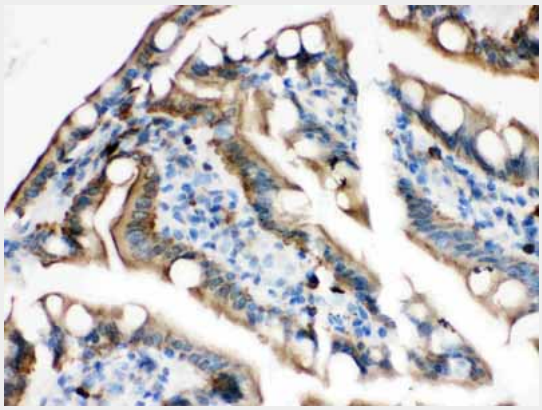


Anti- Plectin Picoband antibody, ABO12120, Western blottingAll lanes: Anti Plectin (ABO12120) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: Rat Brain Tissue Lysate at 50ugPredicted bind size: 532KDObserved bind size: 532KD



Anti- Plectin Picoband antibody, ABO12120, IHC(P)IHC(P): Mouse Intestine Tissue



Anti- Plectin Picoband antibody, ABO12120, IHC(P)IHC(P): Rat Intestine Tissue

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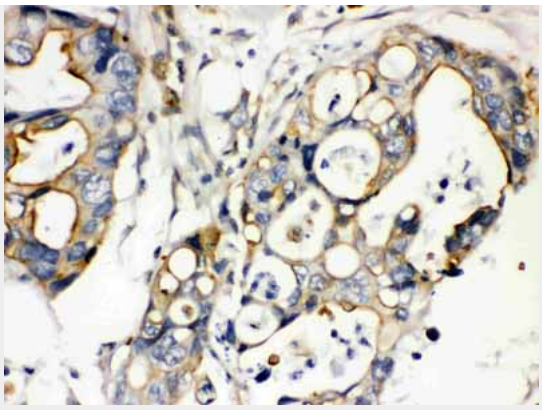

Anti- Plectin Picoband antibody, ABO12120, IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-Plectin Picoband Antibody - Background

Plectin, known as PLEC, is a prominent member of an important family of structurally and in part functionally related proteins, termed plakins or cytolinkers, that are capable of interlinking different elements of the cytoskeleton. Plakins, with their multi-domain structure and enormous size, not only play crucial roles in maintaining cell and tissue integrity and orchestrating dynamic changes in cytoarchitecture and cell shape, but also serve as scaffolding platforms for the assembly, positioning, and regulation of signaling complexes. Plectin is expressed as several protein isoforms in a wide range of cell types and tissues from a single gene located on chromosome 8 in humans. The plectin gene locus in mouse on chromosome 15 has been analyzed in detail, revealing a genomic exon-intron organization with well over 40 exons spanning over 62 kb and an unusual 5' transcript complexity of plectin isoforms. Eleven exons (1-1j) have been identified that alternatively splice directly into a common exon 2 which is the first exon to encode plectin's highly conserved actin binding domain (ABD). Three additional exons (-1, 0a, and 0) splice into an alternative first coding exon (1c), and two additional exons (2alpha and 3alpha) are optionally spliced within the exons encoding the acting binding domain (exons 2-8). Analysis of the human locus has identified eight of the eleven alternative 5' exons found in mouse and rat; exons 1i, 1j and 1h have not been confirmed in human. Furthermore, isoforms lacking the central rod domain encoded by exon 31 have been detected in mouse, rat, and human. The short alternative amino-terminal sequences encoded by the different first exons direct the targeting of the various isoforms to distinct subcellular locations. As the expression of specific plectin isoforms was found to be dependent on cell type (tissue) and stage of development, it appears that each cell type (tissue) contains a unique set (proportion and composition) of plectin isoforms, as if custom-made for specific requirements of the particular cells. Concordantly, individual isoforms were found to carry out distinct and specific functions.