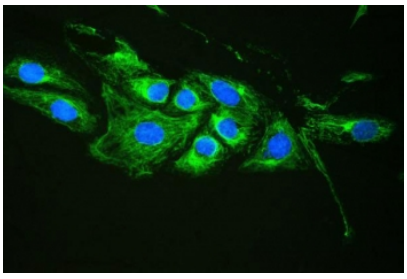
Plectin Antibody (R32233)

Catalog No.	Formulation	Size
R32233	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

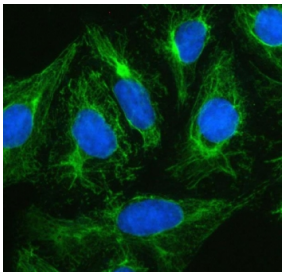
Citations (1)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	Q15149
Localization	Cytoplasmic, cytoskeletal
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml Immunofluorescence : 5ug/ml
Limitations	This Plectin antibody is available for research use only.



Immunofluorescent staining of human U-2 OS cells with Plectin antibody (green) and DAPI (blue). HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



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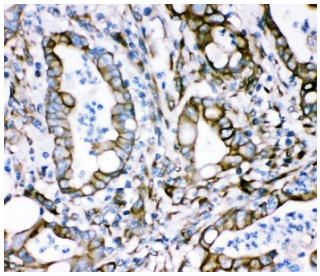
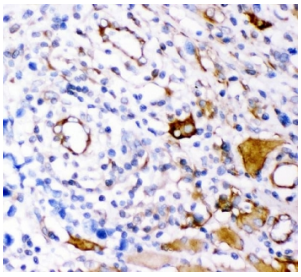
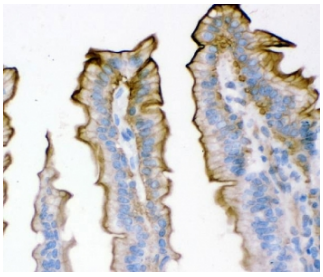


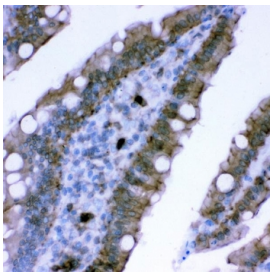
IHC testing of FFPE human intestine cancer with Plectin antibody. HIER: Boil the paraffin sections in pH8 EDTA buffer for 20 minutes and allow to cool prior to staining.



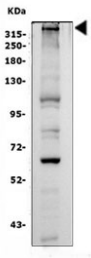
IHC testing of FFPE human lung cancer with Plectin antibody. HIER: Boil the paraffin sections in pH8 EDTA buffer for 20 minutes and allow to cool prior to staining.



IHC testing of FFPE mouse intestine with Plectin antibody. HIER: Boil the paraffin sections in pH8 EDTA buffer for 20 minutes and allow to cool prior to staining.



IHC testing of FFPE rat intestine with Plectin antibody. HIER: Boil the paraffin sections in pH8 EDTA buffer for 20 minutes and allow to cool prior to staining.



Western blot testing of human HeLa celllysate with Plectin antibody. Expected molecular weight ~532 kDa.

Description

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.

Application Notes

Optimal dilution of the Plectin antibody should be determined by the researcher.

Immunogen

Amino acids RFIEQEKAKLEQLFQDEVAKAQQLREEQ of human Plectin were used as the immunogen for the Plectin antibody.

Storage

After reconstitution, the Plectin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.