Product datasheet

Anti-Laminin 5 antibody ab14509

Overview

Product name: Anti-Laminin 5 antibody
Description: Rabbit polyclonal to Laminin 5
Host species: Rabbit
Tested applications: Suitable for: IP, ICC/IF, IHC-Fr, WB, ELISA
Species reactivity: Reacts with: Mouse, Horse, Dog, Human
Immunogen: Full length native protein (purified) corresponding to Human Laminin 5.
Positive control: keratinocytes

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer: Preservative: 0.2% Sodium azide
Constituent: PBS
Purity: Protein G purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab14509 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 16940506</td>
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<tr>
<td>ICC/IF</td>
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<td>Use at an assay dependent concentration. PubMed: 16940506</td>
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<td>IHC-Fr</td>
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<td>Use at an assay dependent concentration.</td>
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Relevance

Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Laminins, composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively), have a cruciform structure consisting of 3 short arms, each formed by a different chain, and a long arm composed of all 3 chains. Each laminin chain is a multidomain protein encoded by a distinct gene. Several isoforms of each chain have been described. Different alpha, beta and gamma chain isomers combine to give rise to different heterotrimeric laminin isoforms which are designated by Arabic numerals in the order of their discovery, i.e. alpha1beta1gamma1 heterotrimer is laminin 1. The biological functions of the different chains and trimer molecules are largely unknown, but some of the chains have been shown to differ with respect to their tissue distribution, presumably reflecting diverse functions in vivo. This gene encodes the gamma chain isoform laminin, gamma 2. The gamma 2 chain, formerly thought to be a truncated version of beta chain (B2t), is highly homologous to the gamma 1 chain; however, it lacks domain VI, and domains V, IV and III are shorter. It is expressed in several fetal tissues but differently from gamma 1, and is specifically localized to epithelial cells in skin, lung and kidney. The gamma 2 chain together with alpha 3 and beta 3 chains constitute laminin 5 (earlier known as kalinin), which is an integral part of the anchoring filaments that connect epithelial cells to the underlying basement membrane. The epithelium-specific expression of the gamma 2 chain implied its role as an epithelium attachment molecule, and mutations in this gene have been associated with junctional epidermolysis bullosa, a skin disease characterized by blisters due to disruption of the epidermal-dermal junction. Two transcript variants resulting from alternative splicing of the 3' terminal exon, and encoding different isoforms of gamma 2 chain, have been described. The two variants are differentially expressed in embryonic tissues, however, the biological significance of the two forms is not known. Transcript variants utilizing alternative polyA_signal have also been noted in literature.

Target

WB

Use at an assay dependent concentration. Detects a band of approximately 165, 140, 105 kDa.

ELISA

Use at an assay dependent concentration.
Western blot - Anti-Laminin 5 antibody (ab14509) at 5 µg/ml + Cell culture supernatant of keratinocytes at 12 µl

**Secondary**

Peroxidase Conjugated Goat Anti-Rabbit Antibody
Immunocytochemistry/ Immunofluorescence - Anti-Laminin 5 antibody (ab14509)

ICC/IF image of ab14509 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab14509, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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