

Anti-Laminin γ -2 antibody, mouse monoclonal (YN557)

70-352 100 μ g

Shipping and Storage: Shipped at 4°C or -20°C and store at -20°C.

Immunogen: Basement membrane isolated from bovine cornea

Form: 1mg/ml in PBS with 50% glycerol. Filter-sterilized.

Purity: Protein A purified IgG1, κ

Reactivity: Laminin γ -2 chain (Human, bovine)

Applications:

1. Western blotting: x1/1,000-2,500 (Fig.1)
2. Immunofluorescence microscopy x1/250-500 (Fig.2,3)

Background: Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. Laminins have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis, by interacting with other extracellular matrix components. Laminins are heterotrimeric proteins with a high molecular mass (~400 to ~900 kDa). They contain three different chains (α , β and γ) encoded by distinct genes, respectively. Laminin subunit γ -2 in human is encoded by the LAMC2 gene, and known as cell-scattering factor 140kDa subunit (aa 1,193). The epithelium-specific expression of the γ -2 implied its role as an epithelium attachment molecule, and mutations in this gene have been associated with junctional epidermolysis bullosa and an important role in cancer invasion.

Data Link: UniProtKB: [Q13753](https://www.uniprot.org/entry/Q13753) (LAMA3_HUMAN)

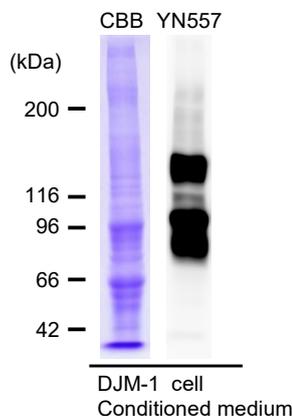


Fig. 1 Western blot analysis of YN557 antibody

Conditioned medium prepared from DJM-1 cells was concentrated by ammonia sulfate precipitation, and was stained with CBB and immunoblotted with YN557 antibody (1:2,500 dilution). The HRP-conjugated goat anti-mouse IgG was used as the second antibody. YN557 antibody detected 155 kDa and 105 kDa bands for non-processed and processed form of laminin γ -2 chains, respectively. Reacted protein bands were visualized using a chemiluminescent detection with EzWestLumi plus kit (ATTO, Tokyo, Japan).

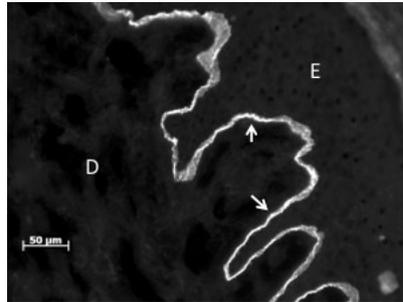


Fig.2 Immunofluorescence microscopy of human skin

A frozen acetone-fixed human skin section was stained with YN557 antibody (1:500 dilution). The FITC-conjugated goat anti-mouse IgG was used as the second antibody. The antibody revealed the location of laminin γ -2 chain at the dermal-epidermal junction (arrows). E: epidermis, D: dermis. Bar = 50

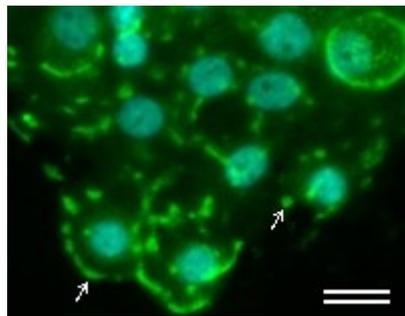


Fig. 3 Immunofluorescence microscopy of cultured DJM-1 cells

Methanol-fixed human carcinoma derived DJM-1 cells were stained with YN557 antibody (1:500 dilution, green) and DAPI (cyan). The FITC-conjugated goat anti-mouse IgG was used as the second antibody. The antibody detected arc- or spotted staining patterns (arrows), which are typical for deposited laminin-332 in DJM-1 cells. Bar = 20 μ m.

Related product: [70-350](#) Anti-Laminin alpha-3 antibody, mouse monoclonal

Reference:

1. Hirako Y., Yonemoto Y, Yamauchi T, Nishizawa Y, Kawamoto Y, Owaribe K. Isolation of a hemidesmosome-rich fraction from a human squamous cell carcinoma cell line. *Exp Cell Res.*, 324: 172-182, 2014.
2. Hirako Y, Usukura J, Uematsu J, Hashimoto T, Kitajima Y, Owaribe K. Cleavage of BP180, a 180-kDa bullous pemphigoid antigen, yields a 120-kDa collagenous extracellular polypeptide. *J Biol Chem.* 273:9711-9717, 1998



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