

Anti-Collagen alpha 1 (VII) antibody, mouse monoclonal (BML39)

70-355 100 µg

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

Immunogen: Native type-VII collagen from bovine cornea

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

Purity: Protein A purified IgG1 κ

Reactivity: Collagen alpha 1 (VII), human, rabbit, bovine, Porcine

No reactivity against other collagen types

Applications:

1. Western blotting: x1/1,000-5,000 (Fig.1)
2. Immunofluorescence microscopy x1/250-500 (Fig.2,3)

Background: Collagen is the main structural protein in the extracellular matrix found in various connective tissues in the body such as cartilage, bones, tendons, ligaments, and skin. It provides structural support to the extracellular space of connective tissues. Collagen α-1(VII) chain in human is a 295 kDa (aa 2,944) protein and encoded by the COL7A1 gene. It functions as an anchoring fibril between the external epithelia and the underlying stroma. Mutations in COL7A1 cause all types of dystrophic epidermolysis

Data Link: UniProtKB: [Q02388](https://www.uniprot.org/entry/Q02388) (COL7A1_HUMAN)

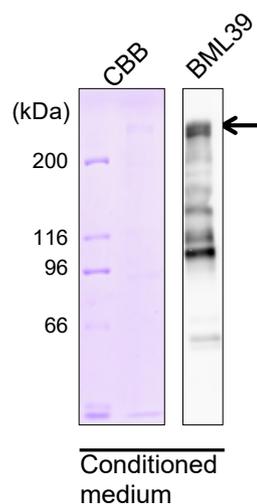


Fig.1 Western blot analysis of BML39 antibody

Serum-free conditioned medium prepared from HEK293 cells transfected with human type VII collagen cDNA was stained with CBB and immunoblotted with BML39 antibody (1:5,000 dilution). The HRP-conjugated goat anti-mouse IgG was used as the second antibody. BML39 antibody detected 300-kDa type VII collagen band and its some degraded fragments. Protein bands were visualized using a chemiluminescent detection with EzWestLumi plus kit (ATTO, Tokyo, Japan).

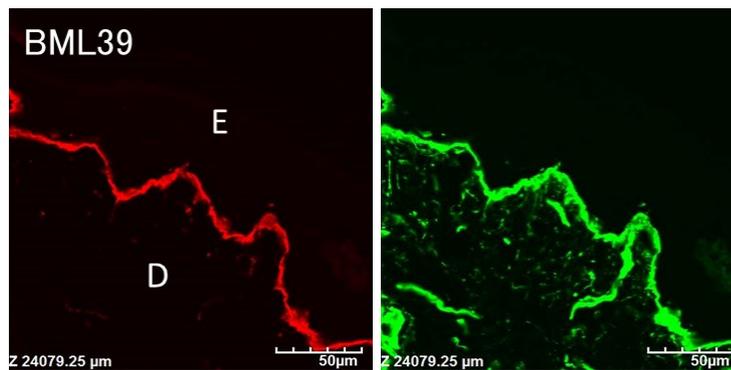


Fig.2 Immunofluorescence microscopy of human skin

A frozen acetone-fixed human skin section was double immuno-stained with BML39 antibody (1:500 dilution, red) and a rabbit polyclonal antibody against type IV collagen (green). The antibody revealed the location of type VII collagen at the dermal-epidermal junction. E: epidermis, D: dermis. Bar = 50 µm

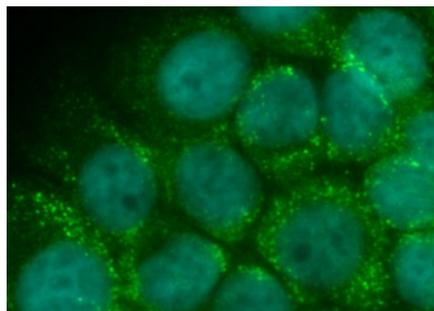


Fig.3 Immunofluorescence microscopy of DJM-1 cells

Methanol-fixed human carcinoma derived DJM-1 cells were stained with BML39 antibody (1:500 dilution, green) and DAPI (cyan). The FITC-conjugated goat anti-mouse IgG was used as the second antibody. The antibody detected secretory vesicles containing type VII collagen.

Related Product: [70-357](#) Anti-Collagen type XVII antibody, mouse monoclonal

Reference:

1. Hirako Y., Yoshino K., Zillikens D., Owaribe K. Extracellular cleavage of bullous pemphigoid antigen 180/type XVII collagen and its involvement in hemidesmosomal disassembly. *J Biochem.* 133: 197-206, 2003
2. Uematsu J., Nishizawa Y., Hirako Y., Kitamura K., Usukura J., Miyata T., Owaribe K. Both type-I hemidesmosomes and adherens-type junctions contribute to the cell-

substratum adhesion system in myoepithelial cells. *Eur J Cell Biol.* 84: 407-415, 2005.

3. Owaribe K, Nishizawa Y, Franke WW. Isolation and characterization of hemidesmosomes from bovine corneal epithelial cells. *Exp Cell Res.* 192:622-630, 1991.

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.