

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

Product code	70-355
Size	100 µg
Storage	-20°C
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium.
Immunogen	Native type-VII collagen from bovine cornea
Isotype	Mouse IgG1κ
Reactivity	Collagen alpha 1 (VII), human, rabbit, bovine, Porcine No reactivity against other collagen types
Special notes	N/A
Application	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 kD (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 (COL7A1_HUMAN)
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 70-355 Anti-Collagen alpha 1 (VII) antibody, mouse monoclonal (BML39)

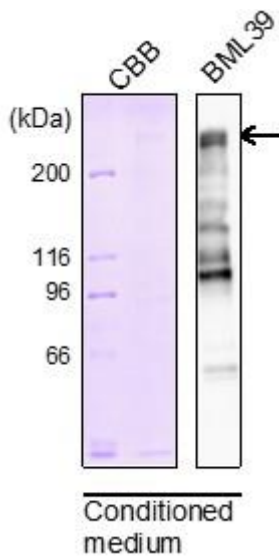


Fig.1 Western blot analysis of BML39 antibody

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).

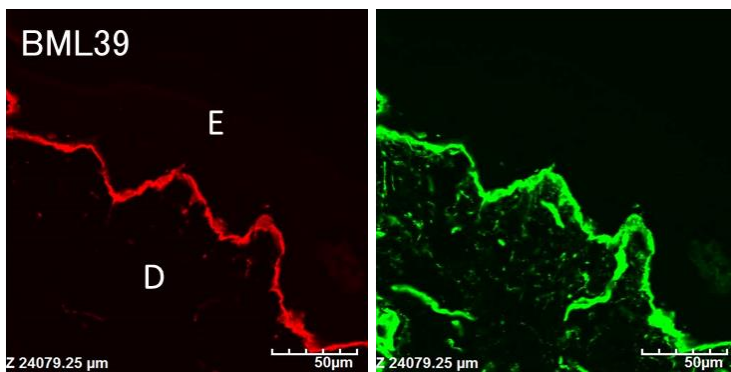


Fig.2 Immunofluorescence microscopy of human skin

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

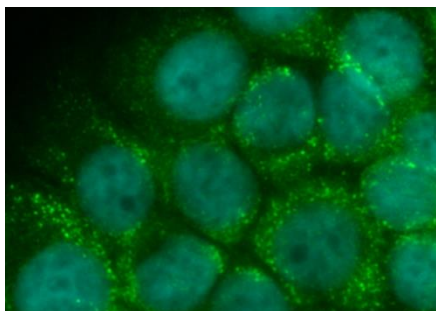


Fig.3 Immunofluorescence microscopy of DJM-1 cells

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.

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.

Related Product:

70-357 Anti-Collagen type XVII antibody, mouse monoclonal