

Rabbit anti-Human Collagen VII/COL7A1 Polyclonal Antibody | anti-COL7A1 antibody

Anti-Collagen VII/COL7A1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125592	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Collagen VII/COL7A1; Polyclonal Antibody; Anti-Collagen VII/COL7A1 Antibody; COL7A1; Collagen alpha-1(VII chain); Long-chain collagen; LC collagen; collagen type VII alpha 1 chain; anti-COL7A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for Collagen VII/COL7A1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Applicable Applications for anti-COL7A1 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human Collagen VII/COL7A1 recombinant protein (Position: E2764-D2944).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



IHC (Immunohistochemistry)

Figure 4. IHC analysis of Collagen VII/COL7A1 using anti-Collagen VII/COL7A1 antibody (AAA125592). Collagen VII/COL7A1 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-Collagen VII/COL7A1 Antibody (AAA125592) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of Collagen VII/COL7A1 using anti-Collagen VII/COL7A1 antibody (AAA125592). Collagen VII/COL7A1 was detected in paraffin-embedded section of human melanoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-Collagen VII/COL7A1 Antibody (AAA125592) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Collagen VII/COL7A1 using anti-Collagen VII/COL7A1 antibody (AAA125592). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Collagen VII/COL7A1 antigen affinity purified polyclonal antibody (Catalog # AAA125592) at 0.5 μ g/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Collagen VII/COL7A1 at approximately 300KD. The expected band size for Collagen VII/COL7A1 is at 300KD.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of A549 cells using anti-Collagen VII/COL7A1 antibody (AAA125592). Overlay histogram showing A549 cells stained with AAA125592 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Collagen VII/COL7A1 Antibody (AAA125592, 1 μ g/1x10⁶ cells) for 30 min at 20 degree C. DyLight[®]488 conjugated goat anti-rabbit IgG (5-10 μ g/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 μ g/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL INFORMATION

Related Product Information for anti-COL7A1 antibody	Collagen alpha-1(VII) chain is a protein that in humans is encoded by the COL7A1 gene. This gene encodes the alpha chain of type VII collagen. The type VII collagen fibril, composed of three identical alpha collagen chains, is restricted to the basement zone beneath stratified squamous epithelia. It functions as an anchoring fibril between the external epithelia and the underlying stroma. Mutations in this gene are associated with all forms of dystrophic epidermolysis bullosa. In the absence of mutations, however, an acquired form of this disease can result from an autoimmune response made to type VII collagen.
References	1. Betts, C. M., Posteraro, P., Costa, A. M., Varotti, C., Schubert, M., Bruckner-Tuderman, L., Castiglia, D. Pretibial dystrophic epidermolysis bullosa: a recessively inherited COL7A1 splice site mutation affecting procollagen VII processing. <i>Brit. J. Derm.</i> 141: 833-839, 1999. 2. Christiano, A. M., Anhalt, G., Gibbons, S., Bauer, E. A., Uitto, J. Premature termination codons in the type VII collagen gene (COL7A1) underlie severe, mutilating recessive dystrophic epidermolysis bullosa. <i>Genomics</i> 21: 160-168, 1994. 3. Christiano, A. M., Hoffman, G. G., Chung-Honet, L. C., Lee, S., Cheng, W., Uitto, J., Greenspan, D. S. Structural organization of the human type VII collagen gene (COL7A1), composed of more exons than any previously characterized gene. <i>Genomics</i> 21: 169-179, 1994.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4502961
NCBI GeneID	1294
NCBI Accession #	NP_000085.1
NCBI GenBank Nucleotide #	NM_000094.3
UniProt Accession #	Q02388 ; Q14054 ; Q16507
Molecular Weight	295,220 Da
NCBI Official Full Name	collagen alpha-1(VII) chain
NCBI Official Synonym Full Names	collagen, type VII, alpha 1
NCBI Official Symbol	COL7A1
NCBI Official Synonym Symbols	EBD1; EBR1; EBDCT
NCBI Protein Information	collagen alpha-1(VII) chain; collagen alpha-1(VII) chain; LC collagen; long-chain collagen; collagen VII, alpha-1 polypeptide
UniProt Protein Name	Collagen alpha-1(VII) chain
UniProt Gene Name	COL7A1

UniProt Synonym Gene Names	LC collagen
UniProt Entry Name	CO7A1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/collagen-vii-col7a1-antibody-direct-elisa-flow-cytometry-immunohistochemistry-western-blot-elisa/125592>