BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Collagen VII/COL7A1 Antibody Picoband®

Catalog Number: A01170-1

About COL7A1

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.

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Overview

Product Name	Anti-Collagen VII/COL7A1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Collagen VII/COL7A1 Antibody Picoband® catalog # A01170-1. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q02388

Technical Details

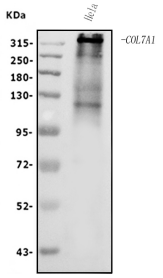
Immunogen	E.coli-derived human Collagen VII/COL7A1 recombinant protein (Position: E2764-D2944).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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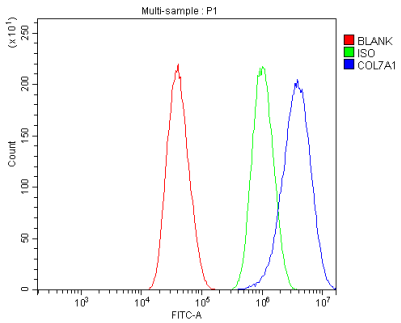
	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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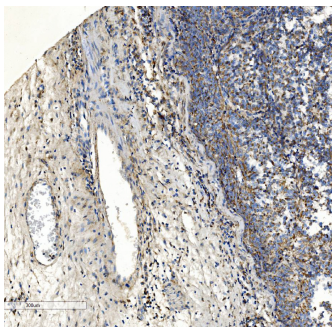
Anti-Collagen VII/COL7A1 Antibody Picoband® (A01170-1) Images



Western blot analysis of Collagen VII/COL7A1 using anti-Collagen VII/COL7A1 antibody (A01170-1). 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 # A01170-1) at 0.5 ug/mL overnight at 4°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 (Catalog # EK1002) 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 295KD.



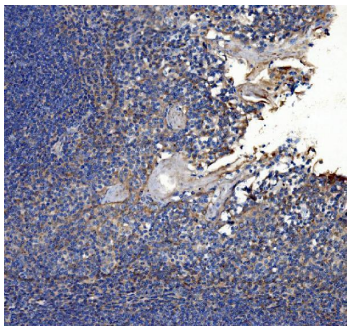
Flow Cytometry analysis of A549 cells using anti-Collagen VII/COL7A1 antibody (A01170-1). Overlay histogram showing A549 cells stained with A01170-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Collagen VII/COL7A1 Antibody (A01170-1, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IHC analysis of Collagen VII/COL7A1 using anti-Collagen VII/COL7A1 antibody (A01170-1). 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 2ug/ml rabbit anti-Collagen VII/COL7A1 Antibody (A01170-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IHC analysis of Collagen VII/COL7A1 using anti-Collagen VII/COL7A1 antibody (A01170-1). Collagen VII/COL7A1 was detected in paraffin-embedded section of human tonsil

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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 2ug/ml rabbit anti-Collagen VII/COL7A1 Antibody (A01170-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

2 Publications Citing This Product

1. PubMed ID: 10.1016/j.biomaterials.2021.121260, An improved osseointegration of metal implants by pitavastatin loaded multilayer films with osteogenic and angiogenic properties

2. PubMed ID: 10.1038/s41401-021-00782-6, CDDO-Im ameliorates osteoarthritis and inhibits chondrocyte apoptosis in mice via enhancing Nrf2-dependent autophagy

Visit bosterbio.com/anti-collagen-vii-col7a1-picoband-trade-antibody-a01170-1-boster.html to see all 2 publications.

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