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Anti-Cytokeratin 14/KRT14 Antibody Picoband®

Catalog Number: A01432

About KRT14

Cytokeratin 14, also known as cytokeratin-14 (CK-14) or keratin-14 (KRT14), is a member of the type I keratin family of intermediate filament proteins. In humans it is encoded by the KRT14 gene. This gene product, a type I keratin, is usually found as a heterotetramer with two keratin 5 molecules, a type II keratin. Mutations in the genes for these keratins are associated with epidermolysis bullosa simplex. At least one pseudogene has been identified at 17p12-p11.

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Overview

Product Name	Anti-Cytokeratin 14/KRT14 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Cytokeratin 14/KRT14 Antibody Picoband® catalog # A01432. Tested in Flow Cytometry, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. 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	Flow Cytometry, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P02533

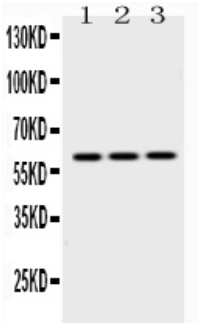
Technical Details

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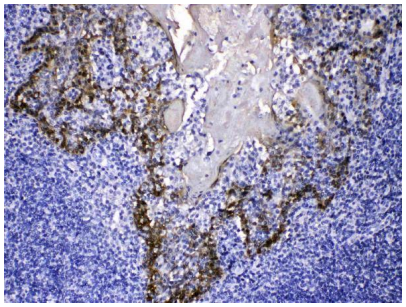
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Cytokeratin 14, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.
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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry, 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human 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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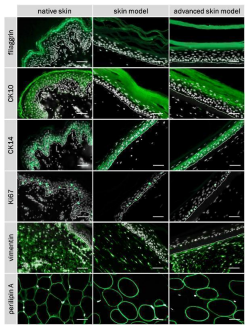
Anti-Cytokeratin 14/KRT14 Antibody Picoband® (A01432) Images



Western blot analysis of Cytokeratin 14 using anti-Cytokeratin 14 antibody (A01432). 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: rat brain tissue lysates, lane 2: NIH3T3 whole cell lysates, lane 3: HEPG2 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-Cytokeratin 14 antigen affinity purified polyclonal antibody (Catalog # A01432) 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 1:10000 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 Cytokeratin 14 at approximately 60KD. The expected band size for Cytokeratin 14 is at 51KD.



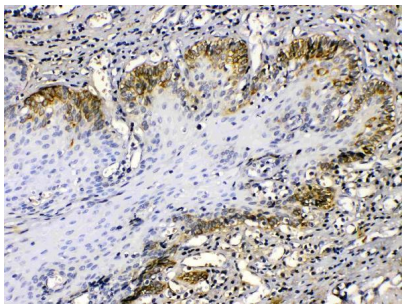
IHC analysis of Cytokeratin 14 using anti-Cytokeratin 14 antibody (A01432). Cytokeratin 14 was detected in paraffin-embedded section of human tonsil tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cytokeratin 14 Antibody (A01432) 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.



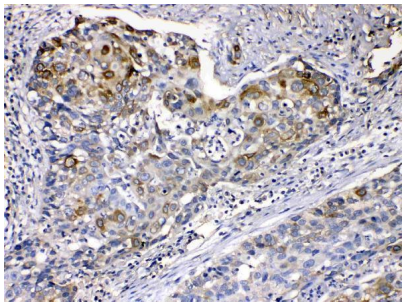
Immunofluorescence staining of filaggrin, CK10, CK14, Ki67, vimentin, perilipin A, and DAPI of native skin and skin models. Cell nuclei (stained with DAPI) are illustrated in white, characteristic proteins (stained with respective specific antibody) in green. White dashed line shows epidermal-dermal border. Scale bar: 50 um.Index in PubMed under a CC BY license. PMID: 32457884

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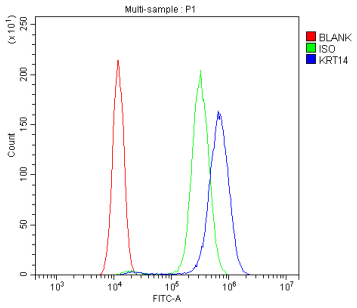
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Flow Cytometry analysis of SiHa cells using anti-Cytokeratin 14 antibody (A01432). Overlay histogram showing SiHa cells stained with A01432 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cytokeratin 14 Antibody (A01432,1ug/1x106 cells) for 30 min at 20°C. DyLight488 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.

3 Publications Citing This Product

1. PubMed ID: 10.1007/s11626-008-9092-2, Long-term culture of keratinocyte-like cells derived from mouse embryonic stem cells

2. PubMed ID: 10.1016/j.exer.2006.11.014, Establishment of a corneal epithelial cell line spontaneously derived from human limbal cells

3. PubMed ID: 10.1042/CBI20090453, Recombinant PBD-1 (porcine beta-defensin 1) expressed in the milk by transplanting transgenic mES-like-derived cells into mouse mammary gland

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