

Rabbit anti-Human Cytokeratin 1/KRT1 Polyclonal Antibody | anti-KRT1 antibody

Anti-Cytokeratin 1/KRT1 Antibody Picoband

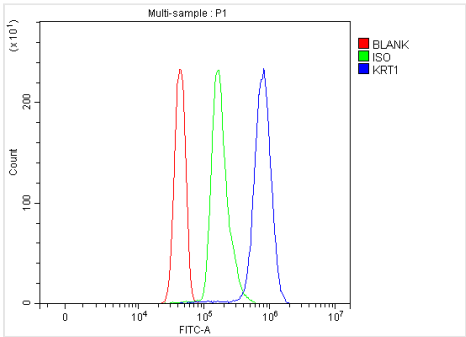
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127074	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

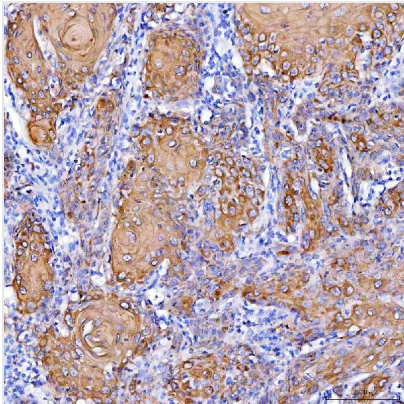
Cytokeratin 1/KRT1; Polyclonal Antibody; Anti-Cytokeratin 1/KRT1 Antibody Picoband; Pituitary homeobox 2; ALL1-responsive protein ARP1; Homeobox protein PITX2; Paired-like homeodomain transcription factor 2; RIEG bicoid-related homeobox transcription factor; Solurshin; PITX2; ARP1; RGS; RIEG; RIEG1; anti-KRT1 antibody

PRODUCT SPECIFICATIONS

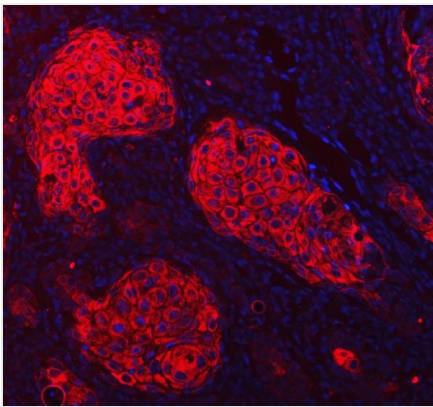
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Isoform 1 is expressed in neurons of the cerebellum and hippocampus. Isoform 2 is expressed in thymus, spleen and lung.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-KRT1 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E coli-derived human Cytokeratin 1/KRT1 recombinant protein (Position: L215-Q431).
Subcellular Localization	Secreted
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Controls cell proliferation in a tissue-specific manner and is involved in morphogenesis. During embryonic development, exerts a role in the expansion of muscle progenitors. May play a role in the proper localization of asymmetric organs such as the heart and stomach. Isoform PITX2C is involved in left-right asymmetry the developing embryo (By similarity).
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.



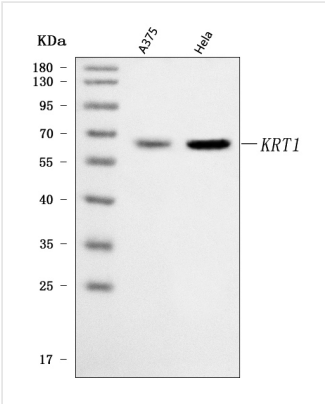
FCM/FACS (Flow Cytometry)
Figure 4. Flow Cytometry analysis of Jurkat cells using anti-Cytokeratin 1/KRT1 antibody (AAA127074).Overlay histogram showing Jurkat cells stained with AAA127074 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cytokeratin 1/KRT1 Antibody (AAA127074, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree 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 (Immunohiostchemistry)
Figure 2. IHC analysis of Cytokeratin 1/KRT1 using anti-Cytokeratin 1/KRT1 antibody (AAA127074).Cytokeratin 1/KRT1 was detected in a paraffin-embedded section of human skin cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Cytokeratin 1/KRT1 Antibody (AAA127074) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



IF (Immunofluorescence)
Figure 3. IF analysis of Cytokeratin 1/KRT1 using anti-Cytokeratin 1/KRT1 antibody (AAA127074).Cytokeratin 1/KRT1 was detected in a paraffin-embedded section of human skin cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5ug/mL rabbit anti-Cytokeratin 1/KRT1 Antibody (AAA127074) overnight at 4 degree C. DyLight550 Conjugated Goat Anti-Rabbit IgG (BA1135) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)
Figure 1. Western blot analysis of Cytokeratin 1/KRT1 using anti-Cytokeratin 1/KRT1 antibody (AAA127074).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 30 ug of sample under reducing conditions.Lane 1: human A375 whole cell lysates,Lane 2: human HeLa whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 1/KRT1 antigen affinity purified polyclonal antibody (#AAA127074) at 0.5ug/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 Cytokeratin 1/KRT1 at approximately 66 kDa. The expected band size for Cytokeratin 1/KRT1 is at 66 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-KRT1 antibody	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.
Product Categories/Family for anti-KRT1 antibody	Primary Antibodies; Cytokines; Immunology; Innate Immunity; Interleukins

References	1. Chipev, C. C., Korge, B. P., Markova, N., Bale, S. J., DiGiovanna, J. J., Compton, J. G., Steinert, P. M. A leucine-to-proline mutation in the H1 subdomain of keratin 1 causes epidermolytic hyperkeratosis. Cell 70: 821-828, 1992. 2. Compton, J. G. Epidermal disease: faulty keratin filaments take their toll. Nature Genet. 6: 6-7, 1994. 3. Compton, J. G., DiGiovanna, J. J., Santucci, S. K., Kearns, K. S., Amos, C. I., Abangan, D. L., Korge, B. P., McBride, O. W., Steinert, P. M., Bale, S. J. Linkage of epidermolytic hyperkeratosis to the type II keratin gene cluster on chromosome 12q. Nature Genet. 1: 301-305, 1992.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	119395750
NCBI GeneID	3848
NCBI Accession #	NP_006112.3
NCBI GenBank Nucleotide #	NM_006121.3
UniProt Accession #	P04264; P85925; P86104; Q14720; Q6GSJ0; Q9H298; B2RA01
Molecular Weight	66039 MW
NCBI Official Full Name	keratin, type II cytoskeletal 1
NCBI Official Synonym Full Names	keratin 1
NCBI Official Symbol	KRT1
NCBI Official Synonym Symbols	K1; CK1; EHK; EHK1; EPPK; KRT1A; NEPPK
NCBI Protein Information	keratin, type II cytoskeletal 1
UniProt Protein Name	Keratin, type II cytoskeletal 1
UniProt Gene Name	KRT1
UniProt Synonym Gene Names	KRTA; CK-1; K1

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.