

Rabbit anti-Human Cytokeratin 2e/KRT2 Polyclonal Antibody | anti-KRT2 antibody

Anti-Cytokeratin 2e/KRT2 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127316	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Cytokeratin 2e/KRT2; Polyclonal Antibody; Anti-Cytokeratin 2e/KRT2 Antibody Picoband; N-alpha-acetyltransferase 15; NatA auxiliary subunit; Gastric cancer antigen Ga19; N-terminal acetyltransferase; NMDA receptor-regulated protein 1; Protein tubedown-1; Tbdn100; NAA15; GA19; NARG1; NATH; TBDN100; anti-KRT2 antibody

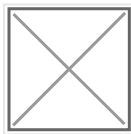
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Expressed at high levels in testis and in ocular endothelial cells. Also found in brain (corpus callosum), heart, colon, bone marrow and at lower levels in most adult tissues, including thyroid, liver, pancreas, mammary and salivary glands, lung, ovary, urogenital system and upper gastrointestinal tract. Overexpressed in gastric cancer, in papillary thyroid carcinomas and in a Burkitt lymphoma cell line (Daudi). Specifically suppressed in abnormal proliferating blood vessels in eyes of patients with proliferative diabetic retinopathy.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Applicable Applications for anti-KRT2 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E coli-derived human Cytokeratin 2e/KRT2 recombinant protein (Position: L213-N332).
Subcellular Localization	Cytoplasm, Nucleus. Mainly cytoplasmic, nuclear in some cases. Present in the free cytosolic and cytoskeleton-bound polysomes, but not in the membrane-bound polysomes
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	Auxillary subunit of the N-terminal acetyltransferase A (NatA) complex which displays alpha (N-terminal) acetyltransferase activity. The NAT activity may be important for vascular, hematopoietic and neuronal growth and development. Required to control retinal neovascularization in adult ocular endothelial cells. In complex with XRCC6 and XRCC5 (Ku80), up-regulates transcription from the osteocalcin promoter.
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 5. Flow Cytometry analysis of U251 cells using anti-Cytokeratin 2e/KRT2 antibody (AAA127316). Overlay histogram showing U251 cells stained with AAA127316 (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 2e/KRT2 Antibody (AAA127316, 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.



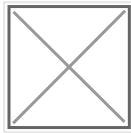
FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of Jurkat cells using anti-Cytokeratin 2e/KRT2 antibody (AAA127316). Overlay histogram showing Jurkat cells stained with AAA127316 (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 2e/KRT2 Antibody (AAA127316, 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.



IF (Immunofluorescence)

Figure 3. IF analysis of Cytokeratin 2e/KRT2 using anti-Cytokeratin 2e/KRT2 antibody (AAA127316). Cytokeratin 2e/KRT2 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 2e/KRT2 Antibody (AAA127316) 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.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Cytokeratin 2e/KRT2 using anti-Cytokeratin 2e/KRT2 antibody (AAA127316). Cytokeratin 2e/KRT2 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 2e/KRT2 Antibody (AAA127316) 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.



WB (Western Blot)

Figure 1. Western blot analysis of Cytokeratin 2e/KRT2 using anti-Cytokeratin 2e/KRT2 antibody (AAA127316). 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 Hacat 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 2e/KRT2 antigen affinity purified polyclonal antibody (#AAA127316) 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 2e/KRT2 at approximately 65 kDa. The expected band size for Cytokeratin 2e/KRT2 is at 65 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-KRT2 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-KRT2 antibody	Primary Antibodies; Cancer; Cancer Susceptibility; Cardiovascular; Domain Families; Epigenetics and Nuclear Signaling; Hlh/Leucine Zipper; Hypertrophy; Immunology; Innate Immunity; Oncoproteins; Oncoproteins/Suppressors; Proto-Oncogenes; TLR Signaling; Tr

References	1. Basarab, T., Smith, F. J. D., Jolliffe, V. M. L., McLean, W. H. I., Neill, S., Rustin, M. H. A., Eady, R. A. J. Ichthyosis bullosa of Siemens: report of a family with evidence of a keratin 2e mutation, and a review of the literature. Brit. J. Derm. 140: 689-695, 1999. 2. Collin, C., Moll, R., Kubicka, S., Ouhayoun, J.-P., Franke, W. W. Characterization of human cytokeratin 2, an epidermal cytoskeletal protein synthesized late during differentiation. Exp. Cell Res. 202: 132-141, 1992.3. Kremer, H., Zeeuwen, P., McLean, W. H. I., Mariman, E. C. M., Lane, E. B., van de Kerkhof, P. C. M., Ropers, H.-H., Steijlen, P. M. Ichthyosis bullosa of Siemens is caused by mutations in the keratin 2e gene. J. Invest. Derm. 103: 286-289, 1994.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	47132620
NCBI GeneID	3849
NCBI Accession #	NP_000414.2
NCBI GenBank Nucleotide #	NM_000423.2
UniProt Accession #	P35908; Q4VAQ2
Molecular Weight	65,433 Da
NCBI Official Full Name	keratin, type II cytoskeletal 2 epidermal
NCBI Official Synonym Full Names	keratin 2, type II
NCBI Official Symbol	KRT2
NCBI Official Synonym Symbols	K2e; KRTE; CK-2e; KRT2A; KRT2E
NCBI Protein Information	keratin, type II cytoskeletal 2 epidermal; cytokeratin-2e; epithelial keratin-2e; keratin-2 epidermis; type-II keratin Kb2
UniProt Protein Name	Keratin, type II cytoskeletal 2 epidermal
UniProt Gene Name	KRT2
UniProt Synonym Gene Names	KRT2A; KRT2E; CK-2e; K2e
UniProt Entry Name	K22E_HUMAN

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