

Cytokeratin 14 Antibody | anti-KRT14 antibody

Cytokeratin 14

CATALOG # AAA59259	HOST Mouse Monoclonal	REACTIVITY Paraffin, Frozen
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PRODUCT SYNONYMS

Cytokeratin 14; anti-KRT14 antibody

PRODUCT SPECIFICATIONS

Host	Mouse Monoclonal
Reactivity	Paraffin, Frozen
Isotype	IgG3
Immunogen	Synthetic peptide of 15 amino acid residues from the C-terminus of the human cytokeratin 14.
Antibody Type	Mouse Monoclonal
Clone	LL002
Localization	Cytoplasmic
Species Reactivity	Human, Rat
Control	Squamous Mucosa, Prostate, Breast, Tonsil, Salivary Gland, Skin, Cervix Carcinoma, Squamous Carcinoma
Application	Breast Cancer, Melanoma & Skin Cancer, Kidney & Urothelial Cancer
Presentation	Anti-Cytokeratin 14 is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.
Precautions	1. For professional users only. Results should be interpreted by a qualified medical professional. 2. This product contains <0.1% sodium azide (NaN₃) as a preservative. Ensure proper handling procedures are used with this reagent. 3. Always wear personal protective equipment such as a laboratory coat, goggles, and gloves when handling reagents. 4. Dispose of unused solution with copious amounts of water. 5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately. 6. Avoid contact with eyes. If contact occurs, flush with large quantities of water. 7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar). 8. For additional safety information refer to Safety Data Sheet for this product. 9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and AMDL" (see References in this document).
Stability	This product is stable up to the expiration date on the product label. Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use and avoid prolonged exposure to room temperature conditions.
Specimen Preparation	Paraffin sections: The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using ImmunoDNA Retriever with Citrate, ImmunoDNA Retriever with EDTA, or ImmunoDNA Digestor. See reverse side for complete protocol. Tissue should remain hydrated via use of Immuno/DNAWasher solutions.
Frozen sections and cell preparations	The antibody can be used on acetone-fixed frozen sections and acetone-fixed cell preparations.

IHC Protocol

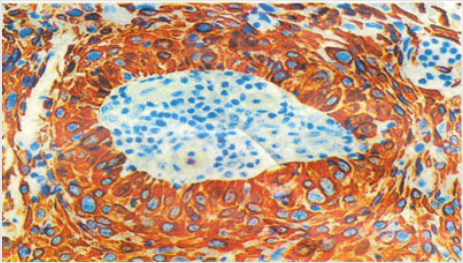
1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Hydrophilic Plus Slides.
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate, and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate.
5. Any of three heating methods may be used:
 - a. TintoRetriever Pressure Cooker or Equivalent Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. TintoRetriever PT Module or Water Bath Method Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
 - c. Conventional Steamer Method Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual IHC, perform antibody incubation at ambient temperature. For automated IHC methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IHC protocol. Wash slides between each step with ImmunoDNA washer solution.

Preparation and Storage

Store at 2-8°C (Control Slides: Store at 20-25°C)

IMAGES

Abbreviated Immunohistochemical Protocol			
Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min.
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate- Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain/Coverslip	Varies	Varies	Varies



IHC (Immunohistochemistry)
IHC of Cytokeratin 14 on a FFPE Cervical Cancer Tissue

IHC (Immunohistochemistry)

ADDITIONAL INFORMATION

Related Product Information for anti-KRT14 antibody

Cytokeratin 14 is a Type I polypeptide found in basal cells of squamous epithelia, some glandular epithelia, myoepithelium, and mesothelial cells. It is usually found as a heterotetramer with two cytokeratin 5 molecules, and a Type II keratin. Together, they form the cytoskeleton of epithelial cells. Mutations in the genes for these cytokeratins are associated with Epidermolysis Bullosa Simplex. Cytokeratin 14 has been studied as a prognostic marker in Breast Cancer. This antibody labels the basal layer of stratifying squamous and non-squamous epithelia. The staining pattern is cytoplasmic. It recognizes Basal Cell Carcinomas and Squamous Cell Carcinomas. Anti-CK14 has been demonstrated to be useful in differentiating Squamous Cell Carcinomas from other epithelial tumors. This antibody has also been useful in separating oncocytic tumors of the kidney from renal mimics, as well as in determining metaplastic Carcinomas of the Breast.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections, and cell preparations. Interpretation of results should be performed by a qualified medical professional.

NCBI AND UNIPROT INFORMATION

NCBI GI #	355568680
UniProt Accession #	P02533; Q14715; Q53XY3; Q9BUE3; Q9UBN2; Q9UBN3; Q9UCY4
NCBI Official Full Name	Cytokeratin-14

UniProt Protein Name	Keratin, type I cytoskeletal 14
UniProt Gene Name	KRT14
UniProt Synonym Gene Names	CK-14; K14
UniProt Entry Name	K1C14_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/mouse-monoclonal-antibody/cytokeratin-14/59259>