abcam

Product datasheet

Anti-Cytokeratin 4 antibody [6B10] ab9004

6 References 1 Image

Overview

Product name	Anti-Cytokeratin 4 antibody [6B10]
Description	Mouse monoclonal [6B10] to Cytokeratin 4
Host species	Mouse
Specificity	Reacts exclusively with cytokeratin 4 which is present in non-cornifying squamous epithelium, including cornea and transitional epithelium. Cells in certain ciliated pseudo-stratified epithelia and ductal epithelia of various exocrine glands are also positive. Normally keratin 4 is not present in the layers of the epidermis, but should be detectable in glandular tissue of the skin (sweat glands). Skin epidermis contains mainly cytokeratins 14 and 19 (in the basal layer) and cytokeratin 1 and 10 in the cornifying layers. Cytokeratin 4 has a molecular weight of approximately 59 kDa.
Tested applications	**Suitable for:** ICC, WB, Flow Cyt
Species reactivity	**Reacts with:** Cat, Dog, Human, Zebrafish
Immunogen	Cytokeratin preparation extracted from human esophagus.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	6B10
Myeloma	Sp2/0
Isotype	IgG1

Applications

Our Abpromise guarantee covers the use of **ab9004** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use at an assay dependent concentration.
WB		1/100 - 1/1000. Predicted molecular weight: 57 kDa.
Flow Cyt		1/25 - 1/200. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Tissue specificity

Detected in the suprabasal layer of the stratified epithelium of the esophagus, exocervix, vagina, mouth and lingual mucosa, and in cells and cell clusters in the mucosa and serous gland ducts of the esophageal submucosa (at protein level). Expressed widely in the exocervix and esophageal epithelium, with lowest levels detected in the basal cell layer.

Involvement in disease

Defects in KRT4 are a cause of white sponge nevus of cannon (WSN) [MIM:193900]. WSN is a rare autosomal dominant disorder which predominantly affects non-cornified stratified squamous epithelia. Clinically, it is characterized by the presence of soft, white, and spongy plaques in the oral mucosa. The characteristic histopathologic features are epithelial thickening, parakeratosis, and vacuolization of the suprabasal layer of oral epithelial keratinocytes. Less frequently the mucous membranes of the nose, esophagus, genitalia and rectum are involved.

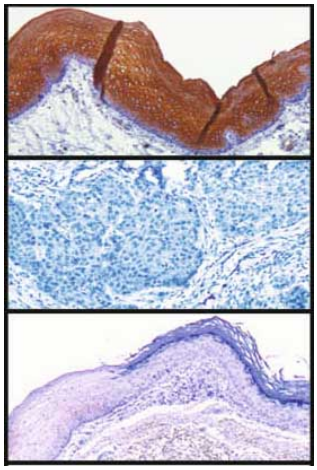
Sequence similarities

Belongs to the intermediate filament family.

Form

Localisation: Intermediate filament (Cytoskeleton).

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 4 antibody [6B10] (ab9004)

Image from Schaaij-Visser TB et al, Oral Oncol. 2010 Feb;46(2):123-7. Epub 2009 Dec 29, Fig 1.

ab9004 at a 1/100 dilution staining Cytokeratin 4 in human leukoplakia lesions by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).
Top image: Normal tissue.
Middle image: Tumor tissue.
Bottom image: Leukoplakia non-progressing.

Paraffin sections were deparaffinized, re-hydrated, subjected to antigen retrieval by microwave boiling for 10 minutes in 10 mM TRIS pH 9.0, 1 mM EDTA, and pre-incubated for 15 minutes with 2% normal rabbit serum. The second step was performed with a biotinylated rabbit anti-mouse at a 1/500 dilution and in the final step horseradish peroxidase labeled streptavidin–biotincomplex was applied. The staining was developed with diaminobenzidine and H_2O_2 as chromogen. The sections were counterstained with haematoxylin and coverslipped with Kaiser's glycerin.

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