

PRODUCT INFORMATION

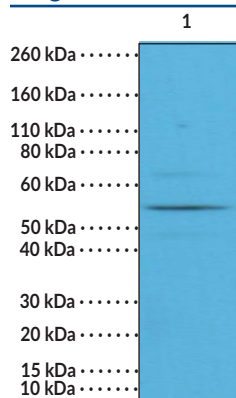


Cytokeratin 4 (C-Term) Rabbit Monoclonal Antibody (Clone RM355) Item No. 32285

Overview and Properties

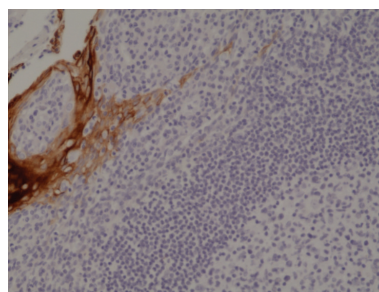
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| Contents: | This vial contains 100 µl of protein A-affinity purified monoclonal antibody. |
| Synonyms: | CK-4, Keratin-4, Keratin, Type II Cytoskeletal 4, KRT4 |
| Immunogen: | Peptide from the C-terminal region of human cytokeratin 4 |
| Cross Reactivity: | (+) Cytokeratin 4 |
| Species Reactivity: | (+) Human |
| Form: | Liquid |
| Storage: | -20°C (as supplied) |
| Stability: | ≥1 year |
| Storage Buffer: | PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide |
| Clone: | RM355 |
| Host: | Rabbit |
| Isotype: | IgG |
| Applications: | Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:100-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically. |

Images



Lane 1: A431 cell lysate

WB of A431 cell lysate using Cytokeratin 4 (C-Term) Rabbit Monoclonal Antibody (Clone RM355) at a dilution of 1:100.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using Cytokeratin 4 (C-Term) Rabbit Monoclonal Antibody (Clone RM355) at a 1:1,000 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Cytokeratin 4 is a type II epithelial intermediate filament protein.¹ It is composed of a central rod containing four α -helical domains, which are important for self-assembly, and non-helical head and tail domains at the N- and C-termini, respectively. Cytokeratin 4 is expressed in mucosal stratified squamous epithelial cells, columnar luminal cells of the respiratory epithelium, and in non-stratified simple epithelial cells, with the highest expression in the esophagus and cornea.² Cytokeratin 4 dimerizes with the type I epithelial intermediate filament protein cytokeratin 13, with the dimers then combining to form tetramers.^{1,2} Mice lacking *Krt4*, the gene encoding cytokeratin 4, have disruptions in the epithelial integrity of the esophagus, tongue, and cornea, including basal hyperplasia, lack of cell maturation, and hyperkeratosis.³ Mutations in *KRT4* have been associated with white sponge nevus, a disorder characterized by thickened white, spongy plaques on the oral mucosa.² Cayman's Cytokeratin 4 (C-Term) Rabbit Monoclonal Antibody (Clone RM355) can be used for immunohistochemistry (IHC) and Western blot applications.

References

1. Gu, L.-H. and Coulombe, P.A. Keratin function in skin epithelia: A broadening palette with surprising shades. *Curr. Opin. Cell Biol.* **19(1)**, 13-23 (2007).
2. Moll, R., Divo, M., and Langbein, L. The human keratins: biology and pathology. *Histochem. Cell Biol.* **129(6)**, 705-733 (2008).
3. Ness, S.L., Edelman, W., Jenkins, T.D., *et al.* Mouse keratin 4 is necessary for internal epithelial integrity. *J. Biol. Chem.* **273(37)**, 23904-23911 (1998).

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