

# Cytokeratin 14 (KRT14) (Squamous Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone KRT14/284 ]

Catalog # AH11687

## Product Information

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|-------------------|------------------------------------------------|
| Application       | IF, FC                                         |
| Primary Accession | <a href="#">P02533</a>                         |
| Other Accession   | <a href="#">3861</a> , <a href="#">6545380</a> |
| Reactivity        | Human, Rat, Cat                                |
| Host              | Mouse                                          |
| Clonality         | Monoclonal                                     |
| Isotype           | Mouse / IgG2b, kappa                           |
| Clone Names       | KRT14/284                                      |
| Calculated MW     | 51561                                          |

## Additional Information

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|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID          | 3861                                                                                                                                                          |
| Other Names      | Keratin, type I cytoskeletal 14, Cytokeratin-14, CK-14, Keratin-14, K14, KRT14                                                                                |
| Application Note | IF~~1:50~200 FC~~1:10~50                                                                                                                                      |
| Storage          | Store at 2 to 8°C.Antibody is stable for 24 months.                                                                                                           |
| Precautions      | Cytokeratin 14 (KRT14) (Squamous Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| Name              | KRT14                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Function          | The nonhelical tail domain is involved in promoting KRT5- KRT14 filaments to self-organize into large bundles and enhances the mechanical properties involved in resilience of keratin intermediate filaments in vitro.                                                                                                                                                                                                                                        |
| Cellular Location | Cytoplasm. Nucleus. Note=Expressed in both as a filamentous pattern.                                                                                                                                                                                                                                                                                                                                                                                           |
| Tissue Location   | Expressed in the corneal epithelium (at protein level) (PubMed:26758872). Detected in the basal layer, lowered within the more apically located layers specifically in the stratum spinosum, stratum granulosum but is not detected in stratum corneum. Strongly expressed in the outer root sheath of anagen follicles but not in the germinative matrix, inner root sheath or hair (PubMed:9457912). Found in keratinocytes surrounding the club hair during |

## Background

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Cytokeratin 14 (CK14) belongs to the type I (or A or acidic) subfamily of low molecular weight keratins and exists in combination with keratin 5 (type II or B or basic). CK14 is found in basal cells of squamous epithelia, some glandular epithelia, myoepithelium, and mesothelial cells. Anti-CK14 is useful in differentiating squamous cell carcinomas from poorly differentiated epithelial tumors. Anti-CK14 is one of the specific basal markers for distinguishing between basal and non-basal subtypes of breast carcinomas. Anti-CK14 is also a good marker for differentiation of intraductal from invasive salivary duct carcinoma by the positive staining of basal cells surrounding the in-situ neoplasm as well as for differentiation of benign prostate from prostate carcinoma. Furthermore, this antibody has been useful in separating oncocytic tumors of the kidney from its renal mimics, and in identifying metaplastic carcinomas of the breast.

## References

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van der Velden, L.A., et al. 1993. Cytokeratin expression in normal and (pre)malignant head and neck epithelia: an overview. *Head and Neck* 15:133-146. | Chen, H., et al. 1995. Keratin 14 gene mutations in patients with epidermolysis bullosa simplex. *J. Invest. Dermatol.* 105: 629-632

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.