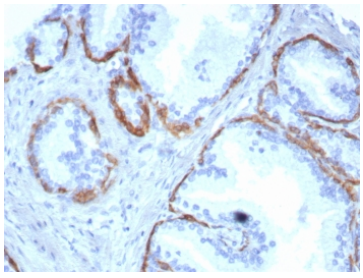
Cytokeratin 14 Antibody / CK14 / KRT14 [clone KRT14/8261R] (V4500)

Catalog No.	Formulation	Size
V4500-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4500-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4500SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	KRT14/8261R
Purity	Protein A/G affinity
UniProt	P02533
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Cytokeratin 14 antibody is available for research use only.



IHC staining of FFPE human prostate tissue with Cytokeratin 14 antibody (clone KRT14/8261R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Cytokeratin 14 Antibody recognizes Cytokeratin 14, also known as Keratin 14 (KRT14), a type I intermediate filament protein that is a defining marker of basal cells in stratified squamous epithelia. Cytokeratin 14 is a cytoplasmic structural

protein that forms obligate heterodimers with type II keratins, most notably Keratin 5, to generate the intermediate filament network that supports epithelial cell shape, adhesion, and resistance to mechanical stress. Cytokeratin 14 Antibody is widely used as a marker of basal squamous epithelial identity and is commonly referred to as Keratin 14 antibody or KRT14 antibody in the literature.

Cytokeratin 14 expression is characteristically restricted to the basal layer of stratified squamous epithelia, including epidermis, oral mucosa, esophagus, cervix, and other squamous-lined tissues. In these tissues, KRT14-positive basal cells represent the proliferative compartment that gives rise to suprabasal differentiated cells expressing keratins such as Cytokeratin 13 or Cytokeratin 10. This mutually exclusive basal versus suprabasal expression pattern makes Cytokeratin 14 Antibody particularly useful for distinguishing basal progenitor cells from differentiated squamous epithelial populations.

Altered Cytokeratin 14 expression has been documented in a range of pathological conditions. Increased or expanded KRT14 expression beyond the basal layer is frequently observed in epithelial hyperplasia, dysplasia, and squamous cell carcinoma, reflecting aberrant differentiation and tumor progression. As a result, Cytokeratin 14 antibody staining patterns are commonly evaluated in research studies focused on squamous lineage commitment, epithelial stem cell biology, and malignant transformation.

At the cellular level, Cytokeratin 14 plays a central role in maintaining cytoskeletal integrity and anchoring epithelial cells to the basement membrane through interactions with desmosomes and hemidesmosomes. Its basal cell-restricted expression makes Cytokeratin 14 Antibody a useful tool for studying epithelial stratification, basal cell dynamics, and squamous tissue organization. The Cytokeratin 14 Antibody (clone KRT14/8261R) is designed to detect Cytokeratin 14 expression in research applications where assessment of basal squamous epithelial cells is required.

Application Notes

Optimal dilution of the Cytokeratin 14 antibody should be determined by the researcher.

Immunogen

A recombinant human KRT14 fragment (within amino acids 272-472) was used as the immunogen for the Cytokeratin 14 antibody.

Storage

Aliquot the Cytokeratin 14 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.