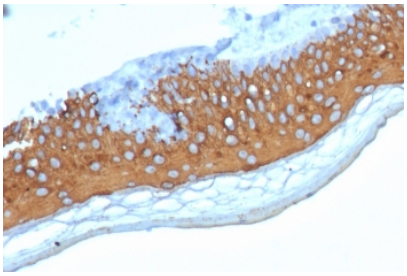
Cytokeratin 10 Antibody / CK10 [clone KRT10/7804R] (V4491)

Catalog No.	Formulation	Size
V4491-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4491-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4491SAF-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	KRT10/7804R
Purity	Protein A/G affinity
UniProt	P13645
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Cytokeratin 10 antibody is available for research use only.



IHC staining of FFPE human skin tissue with Cytokeratin 10 antibody (clone KRT10/7804R) at 2ug/ml. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Cytokeratin 10 antibody recognizes Keratin 10, a type I intermediate filament protein encoded by the KRT10 gene and a core component of the suprabasal keratinocyte cytoskeleton in stratified squamous epithelia. Keratin 10 is a hallmark

marker of terminal epidermal differentiation and pairs primarily with Keratin 1 to form stable intermediate filament networks that provide mechanical strength to differentiating keratinocytes. Cytokeratin 10 antibody reagents are therefore widely used to study epidermal maturation, epithelial lineage commitment, and disorders of keratinization in both normal and diseased tissues.

Keratin 10 expression is largely restricted to suprabasal layers of the epidermis, where it appears as cells exit the basal proliferative compartment and initiate terminal differentiation. This sharply contrasts with basal keratins such as Keratin 5 and Keratin 14, making Keratin 10 a valuable counter-marker for distinguishing differentiated squamous epithelium from basal or progenitor cell populations. Cytokeratin 10 antibody detection typically reveals strong cytoplasmic filamentous staining in suprabasal keratinocytes, reflecting its structural role in maintaining epidermal integrity and barrier function.

Beyond normal skin biology, Keratin 10 has important diagnostic relevance in pathology. Loss, reduction, or aberrant distribution of Keratin 10 expression is observed in hyperproliferative epidermal disorders, inflammatory dermatoses, and certain squamous neoplasms. In squamous cell carcinoma and related lesions, Cytokeratin 10 antibody staining can help assess the degree of differentiation, with well-differentiated tumors often retaining Keratin 10 expression while poorly differentiated tumors show diminished or absent staining. Altered Keratin 10 expression is also documented in inherited skin disorders such as epidermolytic hyperkeratosis, underscoring its functional importance in keratinocyte stability.

At the molecular level, Keratin 10 belongs to the type I acidic keratin family and contains the conserved alpha-helical rod domain characteristic of intermediate filament proteins, enabling heterodimerization and filament assembly. Its expression is tightly regulated during epidermal stratification and is linked to calcium signaling and transcriptional programs governing keratinocyte differentiation. A Cytokeratin 10 antibody is therefore a useful tool for investigating epidermal biology, differentiation status, and disease-associated alterations in squamous epithelia.

Application Notes

Optimal dilution of the Cytokeratin 10 antibody should be determined by the researcher.

Immunogen

A recombinant human fragment (within amino acids 500-600) of human protein was used as the immunogen for the Cytokeratin 10 antibody.

Storage

Aliquot the Cytokeratin 10 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.