



Qty: 100 µg/200 µL

Mouse anti-Cytokeratin 10

Catalog No. 39-5300

Lot No.

Mouse anti-Cytokeratin 10

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: VIK-10

ISOTYPE: Mouse IgG₁

IMMUNOGEN

Cytoskeleton preparation extracted from human epidermis by detergent/high salt extraction

SPECIFICITY

This antibody is specific for the human cytokeratin 10 (CK10) protein. On Western blots, it identifies the target band at ~57 kDa.

REACTIVITY

Reactivity has been confirmed by Western blotting with human HeLa and A431 cell lysates and by immunohistochemistry on paraffin-embedded human skin tissue.

Sample	Immuno-histochemistry (paraffin)	Western Blotting
Human	+++*	+++
Mouse	0	0
Rat	0	0
Rabbit	0	0

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Immunohistochemistry*: 10-20 µg/mL

Western Blotting: 1-3 µg/mL

*For immunohistochemistry in paraffin-embedded tissue, pretreatment with Digest-All™ 2 (Trypsin) at 37°C is required.

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

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PI395300

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BACKGROUND

Intermediate filaments (IFs) are cytoskeletal structures found in most vertebrate cells. As the specificity of expression of IF proteins is retained in malignant tumors, they are suitable as histological markers of differentiation (tumor markers).^{1,2}

The cytokeratins (CKs) are one of seven families of IFs. At present, more than 20 different CKs have been identified. The protein subunits of the epithelial CK filaments are unusually diverse, and within the various types of epithelia, their expression is differentiation specific. On the basis of their main tissue distribution patterns, it is possible further to subdivide these polypeptides into CKs typical of stratified squamous epithelia (CKs 1-6, 9-17) and those typical of simple columnar epithelia (CKs 7, 8, 18-20). These CKs exhibit differential expression patterns in the various types of squamous and columnar epithelia.²⁻⁵

Cytokeratin 10 is an IF chain that belongs to the acidic type I family, and it is expressed in terminally differentiated epidermal cells. Epithelial cells almost always coexpress pairs of type I and type II cytokeratins, and the pairs that are coexpressed are highly characteristic of a given epithelial tissue. For example, in human epidermis, cytokeratins 1 (type II) and 10 (type I), characteristic of suprabasal terminally differentiating cells, are expressed.⁷

REFERENCES

1. Moll R. *Veroff Pathol* 142:1-197, 1993.
2. Hesse M, et al. *J Cell Sci* 114(14):2569-2575, 2001.
3. Glass C, et al. *J Cell Biol* 101(6):2366-2373, 1985.
4. Bouwens, L. *J Pathol* 184(3):234-239, 1998.
5. Goldstein NS & Bassi D. *Am J Clin Pathol* 115(5):695-702, 2001.
6. Darmon MY, et al. *Molec Biol Rep* 12:277-283, 1987.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

Conjugate	ZyMAX[™] Goat x Rabbit IgG (H+L)	ZyMAX[™] Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy [™] 3	81-6115	81-6515
Cy [™] 5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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