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Cytokeratin 15 Mouse mAb

Catalog # AP99228

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P19012
Other Accession	P19012
Reactivity	Rat, Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	49212
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Cytokeratin 15
Isotype	IgG1, Kappa
Purity	affinity purified by Protein A
Buffer	Liquid in PBS containing 50% Glycerol, 0.5% BSA and 0.02% Proclin300.
SIMILARITY	Belongs to the intermediate filament family.
SUBUNIT	Heterotetramer of two type I and two type II keratins.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is a member of the keratin gene family. The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hair keratins. Most of the type I cytokeratins consist of acidic proteins which are arranged in pairs of heterotypic keratin chains and are clustered in a region on chromosome 17q21.2. [provided by RefSeq].

Additional Information

Gene ID	3866
Other Names	CK15; K15; K1CO; Krt1-15; Ka15; K1C15_HUMAN; KRT15; Cytokeratin-15 (CK-15); Keratin-15 (K15); KRTB; K1C15_MOUSE; K1C15_RAT; Type I keratin Ka15; keratin 15; keratin 15, type I; keratin-15, basic; keratin-15, beta; type I cytoskeletal 15; cytokeratin 15
Dilution	IHC-P=1:200-800,IHC-F=1:200-800,IF=1:200-800
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	KRT15 (HGNC:6421)

Synonyms	KRTB
Function	Structural component of intermediate filaments in the epithelium. Forms heteropolymers with type II keratin KRT5, assembling into keratin intermediate filament network that promotes mechanical resilience of undifferentiated cells, including hair follicle bulge cells, foregut basal progenitors and intestinal crypt cells. Displays an antagonist role with KRT14 in basal epithelial cells, where KRT14 promotes cell differentiation while KRT15 maintains the progenitor state and promotes proliferation and clonogenicity (PubMed:41511042). Promotes the progenitor state in basal keratinocytes by maintaining cytoplasmic YAP1 less effectively than KRT14 due to missing biochemical motifs, thereby allowing higher YAP1 nuclear activity (PubMed:41511042). Also contributes to epithelial cell regeneration after injury. In the absence of KRT14, forms a bona fide, but ultrastructurally distinct keratin filament network with KRT5 (By similarity).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q61414}.
Tissue Location	Expressed in a discontinuous manner in the basal cell layer of adult skin epidermis, but continuously in the basal layer of fetal skin epidermis and nail. Also expressed in the outer root sheath above the hair bulb in hair follicle (at protein level) Expressed homogeneously in all cell layers of the esophagus and exocervix, but detected in the basal cell layer only of oral mucosa, skin and in the basal plus the next two layers of the suprabasal epithelium of the palate. Expressed in basal cells on the airway surface and in the gland ducts in pulmonary bronchus (PubMed:36512409)

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