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Cytokeratin 15 Antibody

Rabbit mAb
Catalog # AP90424

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	P19012
Reactivity	Human, Mouse
Clonality	Monoclonal
Other Names	CK-15; CK15; cytokeratin15; K15; K1C15; K1CO; keratin 15; Keratin-15; keratin-15, beta; KRT15; KRTB; type I cytoskeletal 15;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	49212

Additional Information

Dilution	WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Cytokeratin 15
Description	The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hair keratins. There are two types of cytoskeletal and microfibrillar keratin: type I (acidic; 40-55 kDa) [K9 to K20] and type II (neutral to basic; 56-70 kDa) [K1 to K8]. Both a basic and an acidic keratin are required for filament assembly. Note: This description may include information from UniProtKB.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

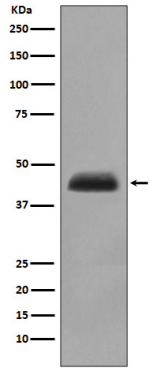
Cellular Location

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)

Images



Western blot analysis of Cytokeratin 15 expression in human fetal thymus lysate.

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