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Anti-Cytokeratin 15 Rabbit Monoclonal Antibody

Catalog # ABO14181

Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	P19012
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Cytokeratin 15 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	3866
Other Names	Keratin, type I cytoskeletal 15, Cytokeratin-15, CK-15, Keratin-15, K15, KRT15, KRTB
Calculated MW	49212
Application Details	WB 1:1000-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 FC 1:50
Tissue Specificity	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..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: DOB-11
Immunogen	A synthesized peptide derived from human Cytokeratin 15
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

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

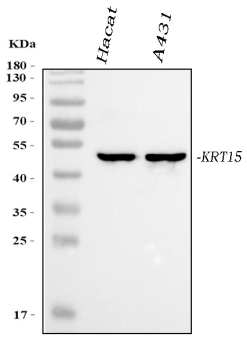
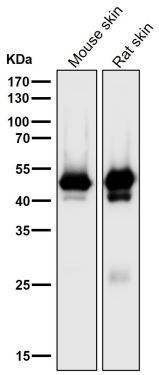
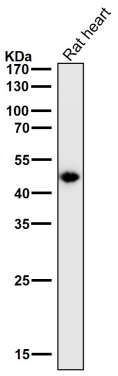


Figure 1. Western blot analysis of Cytokeratin 15 using anti-Cytokeratin 15 antibody (M06791-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hacat whole cell lysates,
Lane 2: human A431 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Cytokeratin 15 antigen affinity purified monoclonal antibody (Catalog # M06791-1) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cytokeratin 15 at approximately 49 kDa. The expected band size for Cytokeratin 15 is at 49 kDa.



All lanes use the Antibody at 1:4K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:4K dilution for 1 hour at room temperature.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.