Cytokeratin 14 (ABT047) Mouse mAb

CatalogNo: YM4064

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse,Rat

Applications
- IHC,WB,IF,ELISA

MW
- 52kD (Calculated)

53kD (Observed)

Isotype
- IgG2b,Kappa

Recommended Dilution Ratios

IHC 1:200-1000
WB 1:500-2000
IF 1:100-500
ELISA 1:1000-5000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	ABT047

Immunogen Information

Immunogen	Synthesized peptide derived from human CK14 AA range: 400-472
Specificity	The antibody can specifically recognize human CK14 protein. In immunohistochemistry on formalin-fixed, paraffin-embedded tissue sections, the antibody specifically labels the basal cell of squamous epithelial cells and glandular epithelia, myoepithelium and mesothelial cells. In western blotting of A431 cell lysate, the antibody can label a 50 kDa band.

Target Information

Gene name KRT14

Protein Name Cytokeratin-14

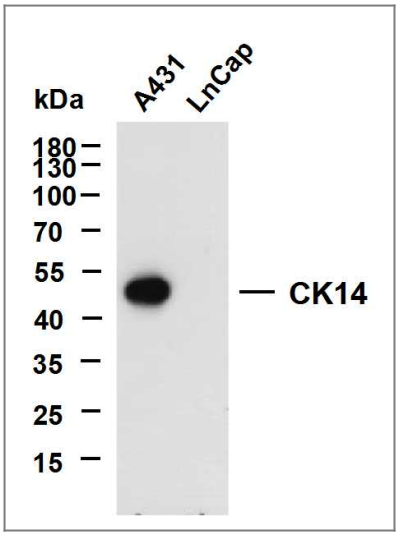
Organism	Gene ID	UniProt ID
Human	3861;	P02533;

Cellular Localization Cytoplasmic, Membranous

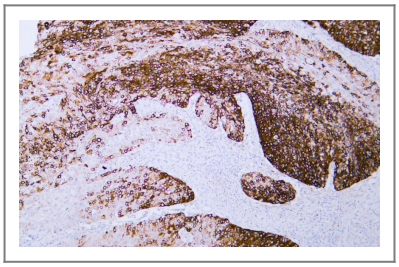
Tissue specificity Expressed in the corneal epithelium (at protein level) (PubMed:26758872). Detected in the basal layer, lowered within the more apically located layers specifically in the stratum spinosum, stratum granulosum but is not detected in stratum corneum. Strongly expressed in the outer root sheath of anagen follicles but not in the germinative matrix, inner root sheath or hair (PubMed:9457912). Found in keratinocytes surrounding the club hair during telogen (PubMed:9457912).

Function Disease:Defects in KRT14 are a cause of epidermolysis bullosa simplex Dowling-Meara type (DM-EBS) [MIM:131760]. DM-EBS is a severe form of intraepidermal epidermolysis bullosa characterized by generalized herpetiform blistering, milia formation, dystrophic nails, and mucous membrane involvement.,Disease:Defects in KRT14 are a cause of epidermolysis bullosa simplex Koebner type (K-EBS) [MIM:131900]. K-EBS is a form of intraepidermal epidermolysis bullosa characterized by generalized skin blistering. The phenotype is not fundamentally distinct from the Dowling-Meara type, althought it is less severe.,Disease:Defects in KRT14 are a cause of epidermolysis bullosa simplex Weber-Cockayne type (WC-EBS) [MIM:131800]. WC-EBS is a form of intraepidermal epidermolysis bullosa characterized by blistering limited to palmar and plantar areas of the skin.,Disease:Defects in KRT14 are the cause of dermatopathia pigmentosa reticularis (DPR) [MIM:125595]. DPR is a rare ectodermal dysplasia characterized by lifelong persistant reticulate hyperpigmentation, noncicatricial alopecia, and nail dystrophy.,Disease:Defects in KRT14 are the cause of epidermolysis bullosa simplex autosomal recessive (AREBS) [MIM:601001]. AREBS is an intraepidermal epidermolysis bullosa characterized by localized blistering on the dorsal, lateral and plantar surfaces of the feet.,Disease:Defects in KRT14 are the cause of Naegeli-Franceschetti-Jadassohn syndrome (NFJS) [MIM:161000]; also known as Naegeli syndrome. NFJS is a rare autosomal dominant form of ectodermal dysplasia. The cardinal features are absence of dermatoglyphics (fingerprints), reticular cutaneous hyperpigmentation (starting at about the age of 2 years without a preceding inflammatory stage), palmoplantar keratoderma, hypohidrosis with diminished sweat gland function and discomfort provoked by heat, nail dystrophy, and tooth enamel defects.,Function:The nonhelical tail domain is involved in promoting KRT5-KRT14 filaments to self-organize into large bundles and enhances the mechanical properties involved in resilience of keratin intermediate filaments in vitro.,miscellaneous:There are two types of cytoskeletal and microfibrillar keratin: I (acidic; 40-55 kDa) and II (neutral to basic; 56-70 kDa).,similarity:Belongs to the intermediate filament family.,subcellular location:Expressed in both as a filamentous pattern.,subunit:Heterotetramer of two type I and two type II keratins. keratin-14 associates with keratin-5. Interacts with TRADD and with keratin filaments. Associates with other type I keratins.,tissue specificity:Detected in the basal layer, lowered within the more apically located layers specifically in the stratum spinosum, stratum granulosum but is not detected in stratum corneum. Strongly expressed in the outer root sheath of anagen follicles but not in the germinative matrix, inner root sheath or hair. Found in keratinocytes surrounding the club hair during telogen.,

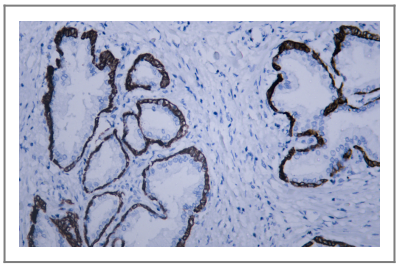
Validation Data



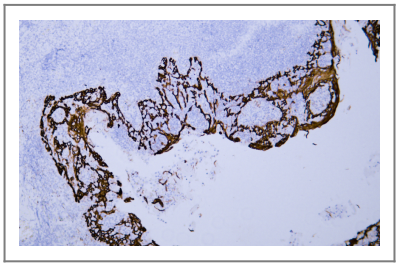
Various whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-CK14 (ABT047) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: A431 Lane 2: LnCap



Human cervical squamous cell carcinoma tissue was stained with Anti-Cytokeratin 14 (ABT047) Antibody



Human prostate tissue was stained with Anti-Cytokeratin 14 (ABT047) Antibody



Human tonsil tissue was stained with Anti-Cytokeratin 14 (ABT047) Antibody

Contact information

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Please scan the QR code to access additional product information: **Cytokeratin 14 (ABT047) Mouse mAb**