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Rabbit Anti-Wide Spectrum Cytokeratin Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52071

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P02533
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51561
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CK14
Epitope Specificity	251-350/472
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus. Note=Expressed in both as a filamentous pattern.
SIMILARITY	Belongs to the intermediate filament family.
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.
Post-translational modifications	A disulfide bond is formed between rather than within filaments and promotes the formation of a keratin filament cage around the nucleus.
DISEASE	Epidermolysis bullosa simplex, Dowling-Meara type (DM-EBS) [MIM:131760]: A severe form of intraepidermal epidermolysis bullosa characterized by generalized herpetiform blistering, milia formation, dystrophic nails, and mucous membrane involvement. Note=The disease is caused by mutations affecting the gene represented in this entry. Epidermolysis bullosa simplex, Weber-Cockayne type (WC-EBS) [MIM:131800]: A form of intraepidermal epidermolysis bullosa characterized by blistering limited to palmar and plantar areas of the skin. Note=The disease is caused by mutations affecting the gene represented in this entry. Epidermolysis bullosa simplex, Koebner type (K-EBS) [MIM:131900]: A form of intraepidermal epidermolysis bullosa characterized by generalized skin blistering. The phenotype is not fundamentally distinct from the Dowling-Meara type, although it is less severe. Note=The disease is caused by mutations affecting the gene represented in this entry. Epidermolysis bullosa simplex, autosomal recessive (AREBS) [MIM:601001]: An intraepidermal epidermolysis bullosa characterized by localized blistering on the dorsal, lateral and plantar surfaces of the feet. Note=The disease is caused by mutations affecting the gene represented in this entry. Naegeli-Franceschetti-Jadassohn syndrome (NFJS) [MIM:161000]: 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. Note=The disease is caused by mutations affecting the gene represented in this entry. Dermatopathia pigmentosa reticularis (DPR) [MIM:125595]: A rare ectodermal dysplasia characterized by lifelong persistent reticulate hyperpigmentation, non-cicatricial alopecia, and nail dystrophy. Variable features include adermatoglyphia, hypohidrosis or hyperhidrosis, and palmoplantar hyperkeratosis. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the keratin family, the most diverse group of intermediate filaments. This gene product, a type I keratin, is usually found as a heterotetramer with two keratin 5 molecules, a type II keratin. Together they form the cytoskeleton of epithelial cells. Mutations in the genes for these keratins are associated with epidermolysis bullosa simplex. At least one pseudogene has been identified at 17p12-p11. [provided by RefSeq].

Additional Information

Gene ID	3861
Other Names	K14; NFJ; CK14; EBS3; EBS4; Keratin, type I cytoskeletal 14; Cytokeratin-14; CK-14; Keratin-14; KRT14
Target/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.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	KRT14
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.
Cellular Location	Cytoplasm. Nucleus. Note=Expressed in both as a filamentous pattern.
Tissue Location	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).

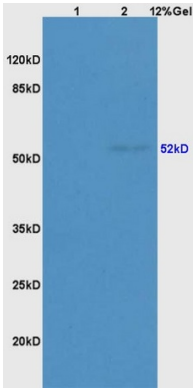
Background

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.

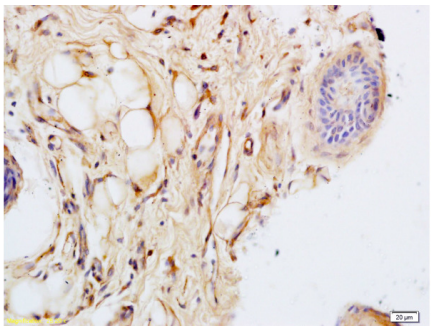
References

Marchuk D.,et al.Cell 39:491-498(1984).
Marchuk D.,et al.Proc. Natl. Acad. Sci. U.S.A. 82:1609-1613(1985).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Zody M.C.,et al.Nature 440:1045-1049(2006).
Hanukoglu I.,et al.Cell 31:243-252(1982).

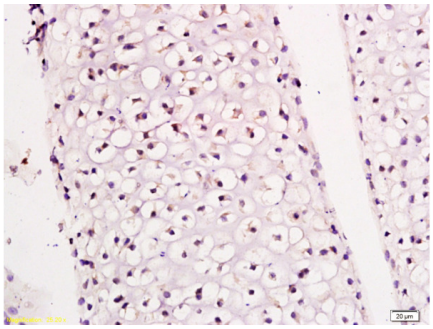
Images



Lane 1: mouse embryo lysates Lane 2: rat brain lysates probed with Anti CK14/17/42/10 Polyclonal Antibody, Unconjugated at 1:3000 90min in 37˚C. Predicted band 52kD. Observed band size: 52kD.

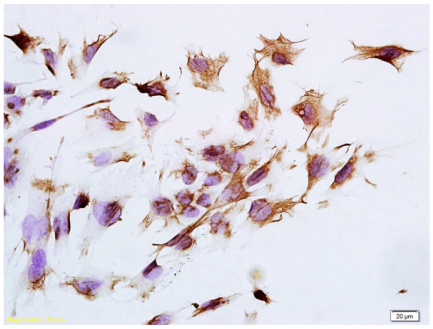


Formalin-fixed and paraffin embedded rat skin tissue labeled with Anti-CK14 Polyclonal Antibody, Unconjugated(AP52071) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Formalin-fixed and paraffin embedded rat articular cartilage tissue labeled with Anti-CK14 Polyclonal Antibody, Unconjugated(AP52071) at 1:300 followed by conjugation to the secondary antibody and DAB staining

Formalin-fixed and paraffin embedded human epithelial cells tissue labeled with Anti-CK14 Polyclonal Antibody, Unconjugated(AP52071) at 1:300 followed by conjugation



to the secondary antibody and DAB staining

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