SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Keratin 4 antibody

Catalog Number: SLM-60219R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Clone No.:	C2H9
Target:	Keratin 4
Immunogen:	KLH conjugated synthetic peptide derived from human Keratin 4
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB (1:500-2000) IHC-P (1:100-500) IHC-F (1:100-500) IF (1:100-500) Not yet tested in other applications. Optimal working dilutions must be determined by the end user.
Reactivity:	Human,Mouse,Rat
Predicted MW.:	57kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	The protein encoded by this gene is a member of the keratin gene family. The type II cytokeratins consist of basic or neutral proteins which are arranged in pairs of heterotypic keratin chains coexpressed during differentiation of simple and stratified epithelial tissues. This type II cytokeratin is specifically expressed in differentiated layers of the mucosal and esophageal epithelia with family member KRT13. Mutations in these genes have been associated with White Sponge Nevus, characterized by oral, esophageal, and anal leukoplakia. The type II cytokeratins are clustered in a region of chromosome 12q12-q13. [provided by RefSeq, Jul 2008] **Subunit:** Heterotetramer of two type I and two type II keratins. Keratin-4 is generally associated with keratin-13.

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	Tissue Specificity: Detected in the suprabasal layer of the stratified epithelium of the esophagus, exocervix, vagina, mouth and lingual mucosa, and in cells and cell clusters in the mucosa and serous gland ducts of the esophageal submucosa (at protein level). Expressed widely in the exocervix and esophageal epithelium, with lowest levels detected in the basal cell layer. DISEASE: Defects in KRT4 are a cause of white sponge nevus of cannon (WSN) [MIM:193900]. WSN is a rare autosomal dominant disorder which predominantly affects non-cornified stratified squamous epithelia. Clinically, it is characterized by the presence of soft, white, and spongy plaques in the oral mucosa. The characteristic histopathologic features are epithelial thickening, parakeratosis, and vacuolization of the suprabasal layer of oral epithelial keratinocytes. Less frequently the mucous membranes of the nose, esophagus, genitalia and rectum are involved. **Similarity:** Belongs to the intermediate filament family. **Database links:** **Entrez Gene:** 3851 Human Omim: 123940 Human **SwissProt:** P19013 Human **Unigene:** 654610 Human **Unigene:** 706527 Human Structural Proteins Cytokeratins are a family of structurally related proteins that form cytoskeletal intermediate filaments in epithelial cells. Keratins often exist in pairs in epithelial cells and have tissue and cell specificity. The specific keratins present in the oral mucosa, nasal cavity, esophagus and anogenital epithelium are CK4 and CK13. CK4 is a type II keratin that is commonly present in non-keratinized squamous epithelial cells; CK4 is expressed in basal cells and is also expressed in squamous cell carcinoma.

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[VALIDATION IMAGES]

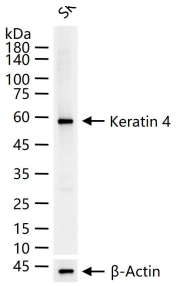


Figure 1. 25 ug total protein per lane of various lysates (see on figure) probed with Keratin 4 monoclonal antibody, unconjugated (SLM-60219R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min

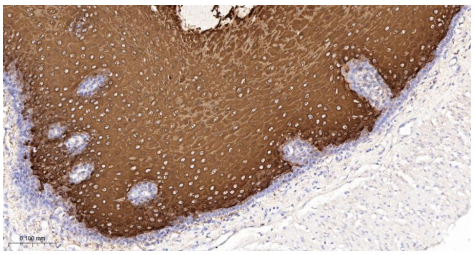


Figure 2. Paraformaldehyde-fixed, paraffin embedded Human Esophagus; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Keratin 4 Monoclonal Antibody, Unconjugated (SLM-60219R) at 1:200 overnight at 4°C, followed by conjugation to the SL0295G-HRP and DAB (C-0010) staining

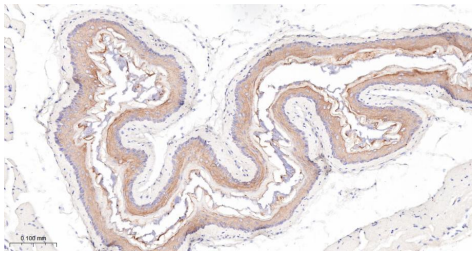


Figure 3. Paraformaldehyde-fixed, paraffin embedded Mouse Esophagus; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Keratin 4 Monoclonal Antibody, Unconjugated (SLM-60219R) at 1:200 overnight at 4°C, followed by conjugation to the SL0295G-HRP and DAB (C-0010) staining

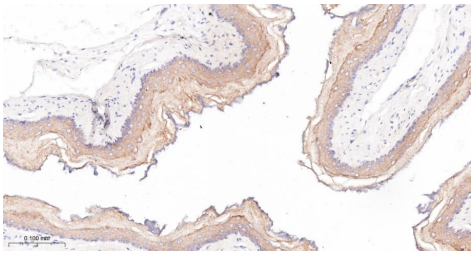


Figure 4. Paraformaldehyde-fixed, paraffin embedded Rat Esophagus; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Keratin 4 Monoclonal Antibody, Unconjugated (SLM-60219R) at 1:200 overnight at 4°C, followed by conjugation to the SL0295G-HRP and DAB (C-0010) staining

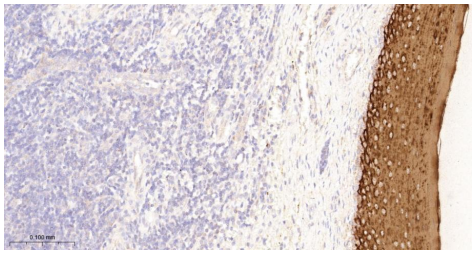


Figure 5. Paraformaldehyde-fixed, paraffin embedded Human Tonsil; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Keratin 4 Monoclonal Antibody, Unconjugated (SLM-60219R) at 1:200 overnight at 4°C, followed by conjugation to the SL0295G-HRP and DAB (C-0010) staining

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