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SM1359P Monoclonal Antibody to Cytokeratin 14 - Purified

Alternate names:	CK14, Cytokeratin-14, K14, KRT14, Keratin 14, Keratin Type I Cytoskeletal 14
Quantity:	0.2 mg
Concentration:	1.0 mg/ml
Background:	Cytokeratin is a type I intermediate filament, expressed by stratifying epithelial cells and can be used to distinguish these cell types from simple epithelial cells, which do not express cytokeratin 14. Keratin 14 is a member of the keratin family, the most diverse group of intermediate filaments. It is usually found as a heterotetramer with two molecules of keratin 5, 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. Keratin 14 has been studied as a prognostic marker in breast cancer.
Uniprot ID:	P02533
NCBI:	NP_000517.2
GeneID:	3861
Host / Isotype:	Mouse / IgG3
Recommended Isotype Controls:	AM03097PU-N
Clone:	LL002
Immunogen:	Last 15 C-terminal residues of Human Cytokeratin 14 conjugated to Thyroglobulin.
Format:	**State:** Liquid purified IgG fraction **Purification:** Ion Exchange Chromatography **Buffer System:** PBS **Preservatives:** 0.09% Sodium Azide
Applications:	**Western Blot.** **Immunofluorescence.** **Flow Cytometry:** Use 10 µl of 1/100 diluted antibody to label 10^6 cells in 100 µl (Membrane permeabilisation is required). **Immunohistochemistry on Frozen Sections.** **Immunohistochemistry on Paraffin Sections:** 1/200. This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer is recommended for this purpose. Enzyme digestion is not recommended. *Recommended Positive Control:* Skin, tonsil or squamous cell carcinoma. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody recognises Cytokeratin 14, a type I intermediate filament, expressed by stratifying epithelial cells and can be used to distinguish these cell types from simple epithelial cells, which do not express Cytokeratin 14.
Species: Human, Elephant, Dog, Pig.
Other species not tested.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

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8. Turner, A. et al. (2011) Transplantation of autologous differentiated urothelium in an experimental model of composite cystoplasty. Eur Urol. 59: 44754.
8. Stumpf, P and Welsch, U. (2004) Secretory and defensive functions of the duct system of the lactating mammary gland of the African elephant (Loxodonta africana, Proboscidea)
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14. Collins, A.T. et alet al. (2005) Prospective identification of tumorigenic prostate cancer stem cells. Cancer Res. 65: 10946-51.
15. Varley, C.L. et al. (2004) Activation of peroxisome proliferator-activated receptor-

gamma reverses squamous metaplasia and induces transitional differentiation in normal human urothelial cells. Am J Pathol. 164: 1789-98.
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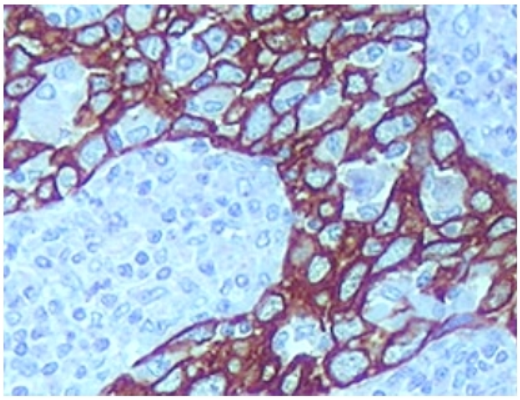
17. Matos, A.J. et al. (2006) Detection of lymph node micrometastases in malignant mammary tumours in dogs by cytokeratin immunostaining.
Vet Rec. 158: 626-30.
18. Turner, A. et al. (2011) Transplantation of autologous differentiated urothelium in an experimental model of composite cystoplasty. Eur Urol. 59: 447-54.
19. Munz, B. et al. (1999) Overexpression of activin A in the skin of transgenic mice reveals new activities of activin in epidermal morphogenesis, dermal fibrosis and wound repair. EMBO J. 18: 5205-15.

Pictures:

Formalin-Fixed, Paraffin-Embedded Human tonsil stained with Cytokeratin 14 antibody clone LL002 using peroxidase conjugate and DAB chromogen. Note the cytoplasmic staining of squamous cells.



Immunoperoxidase staining of Formalin Fixed, Paraffin Embedded human tonsil with Mouse anti Human Cytokeratin 14 Antibody Cat.-No SM1359P folllowing heat mediated antigen retrieval using citrate buffer, pH 6.0