

Datasheet: MCA890

Description:	MOUSE ANTI HUMAN CYTOKERATIN 14
Specificity:	CYTOKERATIN 14
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	LL002
Isotype:	IgG3
Quantity:	0.2 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (2)	▪			1/200
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.

(2)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Elephant, Dog, Pig, Lion</p> <p>N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>

Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Last 15 C-terminal residues of human cytokeratin 14 conjugated to thyroglobulin.
External Database Links	<p>UniProt: P02533 Related reagents</p> <p>Entrez Gene: 3861 KRT14 Related reagents</p>
RRID	AB_322015
Specificity	<p>Mouse anti Human Cytokeratin 14 antibody, clone LL002 recognizes 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.</p> <p>Mouse anti cytokeratin 14, clone LL002 has been reported to be suitable for use in Western blotting (Alam et al. 2011)</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
Histology Positive Control Tissue	Skin
References	<ol style="list-style-type: none"> 1. Purkis, P.E. <i>et al.</i> (1990) Antibody markers of basal cells in complex epithelia. J Cell Sci. 97 (Pt 1): 39-50. 2. Lane, E.B. & Alexander, C.M. (1990) Use of keratin antibodies in tumor diagnosis. Semin Cancer Biol. 1 (3): 165-79. 3. Wetzels, R.H. <i>et al.</i> (1989) Detection of basement membrane components and basal cell keratin 14 in noninvasive and invasive carcinomas of the breast. Am J Pathol. 134 (3): 571-9. 4. Moll, R. <i>et al.</i> (1982) The catalog of human cytokeratins: patterns of expression in normal epithelia, tumors and cultured cells. Cell. 31 (1): 11-24. 5. Richardson, G.D. <i>et al.</i> (2004) CD133, a novel marker for human prostatic epithelial

- stem cells. [J Cell Sci. 117 \(Pt 16\): 3539-45.](#)
6. Holliday, D. *et al.* (2009) Novel multicellular organotypic models of normal and malignant breast: tools for dissecting the role of the microenvironment in breast cancer progression. [Breast Cancer Res. 11: R3](#)
7. Eastman, R. .Jr. *et al.* (2010) Fibroblast growth factor-10 signals development of von Brunn's nests in the exstrophic bladder. [Am J Physiol Renal Physiol.299:F1094-110.](#)
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) [Zoomorphology 123:155-67](#)
9. Alam H *et al.* (2011) Loss of keratins 8 and 18 leads to alterations in $\alpha 6\beta 4$ -integrin-mediated signalling and decreased neoplastic progression in an oral-tumour-derived cell line. [J Cell Sci. 124 \(Pt 12\): 2096-106.](#)
10. Clark, S.E. *et al.* (2011) Molecular subtyping of DCIS: heterogeneity of breast cancer reflected in pre-invasive disease. [Br J Cancer. 104: 120-7.](#)
11. Caceres, S. *et al.* (2015) Establishment and Characterization of a New Cell Line of Canine Inflammatory Mammary Cancer: IPC-366. [PLoS One. 10 \(3\): e0122277.](#)
12. Takahashi, C. *et al.* (2010) Newly established cell lines from mouse oral epithelium regenerate teeth when combined with dental mesenchyme. [In Vitro Cell Dev Biol Anim. 46: 457-68.](#)
13. Faustino, A.M. & Dias Pereira, P. (2007) A salivary malignant myoepithelioma in a dog. [Vet J. 173 \(1\): 223-6.](#)
14. Collins, A.T. *et 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.](#)
16. Abdeen, S.K. *et al.* (2011) Wwox inactivation enhances mammary tumorigenesis. [Oncogene. 30: 3900-6.](#)
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.](#)
20. Mwase, M. *et al.* (2013) Cutaneous Squamous Cell Carcinoma presenting as a Wound with Discharging Sinus Tracts in a Wild African Lion (*Panthera leo*). [J Comp Pathol. pii: S0021-9975\(13\)00106-0.](#)
21. Honda, K. & Tomooka, Y. (2016) Nerve-independent and ectopically additional induction of taste buds in organ culture of fetal tongues. [In Vitro Cell Dev Biol Anim. 52 \(9\): 911-9.](#)
22. Hustler, A. *et al.* (2018) Differential transcription factor expression by human epithelial cells of buccal and urothelial derivation. [Exp Cell Res. 369 \(2\): 284-294.](#)
23. Ogihara, K. & Madarame, H. (2020) Pancreatic adenosquamous carcinoma with invasion to the spleen in a cat. [J Vet Med Sci. 82 \(9\): 1395-9.](#)
24. Stumpf, P. & Welsch, U. (2002) Cutaneous eccrine glands of the foot pads of the rock hyrax (*Procavia capensis*, *Hyracoidea*, *Mammalia*). [Cells Tissues Organs. 171 \(2-3\):](#)

[215-26.](#)

25. Stumpf, P. *et al.* (2004) Cutaneous eccrine glands of the foot pads of the small Madagascan tenrec (*Echinops telfairi*, *Insectivora*, *Tenrecidae*.): skin glands in a primitive mammal. [Cell Tissue Res. 315 \(1\): 59-70.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Human Anti Mouse IgG3 (HCA039...) [FITC](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#),
[DyLight@650](#), [DyLight@680](#), [DyLight@800](#),
[FITC](#), [HRP](#)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

'M383556:210513'

Printed on 29 Aug 2021

© 2021 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)