

Datasheet: MCA890F

BATCH NUMBER 162017

Description:	MOUSE ANTI HUMAN CYTOKERATIN 14:FITC
Specificity:	CYTOKERATIN 14
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	LL002
Isotype:	IgG3
Quantity:	0.1 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)	▪			Neat - 1/10
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.

Target Species

Human

Species Cross Reactivity

Reacts with: Elephant, Dog, Pig, Lion

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.

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525

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 (NaN ₃) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
Immunogen	Last 15 C-terminal residues of human cytokeratin 14 conjugated to thyroglobulin.
External Database Links	UniProt: P02533 Related reagents Entrez Gene: 3861 KRT14 Related reagents
RRID	AB_872024
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 <i>et al.</i> 2011)</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
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. <i>et al.</i> (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: R37. Eastman, R. .Jr. <i>et al.</i> (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.](#)
 26. Sakai, Y. *et al.* (2019) A clonal stem cell line established from a mouse mammary placode with ability to generate functional mammary glands. [In Vitro Cell Dev Biol Anim. 55 \(10\): 861-71.](#)

27. Yasuno, K. *et al.* (2013) Atypical canine mammary adenoma characterized by cystic ducts comprising a single layer of basaloid cells with myoepithelial differentiation. [J Vet Med Sci. 75 \(8\): 1095-9.](#)

Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA890F10041
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

[LEUCOPERM \(BUF09\)](#)

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

North & South America	Tel: +1 800 265 7376 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
'M384801:210513'

Printed on 30 Jul 2024