Datasheet: MCA890F

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.

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
Specificity	**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. Mouse anti cytokeratin 14, clone LL002 has been reported to be suitable for use in Western blotting (Alam *et al.* 2011)
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
References	1. Purkis, P.E. *et al.* (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. *et al.* (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. *et al.* (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. *et al.* (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 α6β4-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. Hale, L.P. and Markert, M.L. (2004) Corticosteroids regulate epithelial cell differentiation and Hassall body formation in the human thymus. J Immunol. 172: 617-24. 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. *et al.* (2007) A salivary malignant myoepithelioma in a dog. Faustino, A.M. and Dias Pereira, P. 14. Collins, A.T. *et al*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.

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21. 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.
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Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

LEUCOPERM™ (BUF09)
HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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