

## Datasheet: MCA890

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

## Product Details

**RRID** AB\_322015

### 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](http://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

Reacts with: Elephant, Dog, Pig, Lion

**N.B.** Antibody reactivity and working conditions may vary between species.

### Product Form

Purified IgG - liquid

### Preparation

Purified IgG prepared by ion exchange chromatography from tissue culture supernatant

### Buffer Solution

Phosphate buffered saline

### Preservative Stabilisers

0.09% Sodium Azide

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Last 15 C-terminal residues of human cytokeratin 14 conjugated to thyroglobulin.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P02533</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3861</a>   KRT14   <a href="#">Related reagents</a></p>
<b>Specificity</b>	<p><b>Mouse anti Human Cytokeratin 14 antibody, clone LL002</b> 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 (<a href="#">Alam <i>et al.</i> 2011</a>)</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
<b>Histology Positive Control Tissue</b>	Skin
<b>References</b>	<ol style="list-style-type: none"> <li>1. Purkis, P.E. <i>et al.</i> (1990) Antibody markers of basal cells in complex epithelia. <a href="#">J Cell Sci. 97 ( Pt 1): 39-50.</a></li> <li>2. Lane, E.B. &amp; Alexander, C.M. (1990) Use of keratin antibodies in tumor diagnosis. <a href="#">Semin Cancer Biol. 1 (3): 165-79.</a></li> <li>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. <a href="#">Am J Pathol. 134 (3): 571-9.</a></li> <li>4. Moll, R. <i>et al.</i> (1982) The catalog of human cytokeratins: patterns of expression in normal epithelia, tumors and cultured cells. <a href="#">Cell. 31 (1): 11-24.</a></li> <li>5. Richardson, G.D. <i>et al.</i> (2004) CD133, a novel marker for human prostatic epithelial stem cells. <a href="#">J Cell Sci. 117 (Pt 16): 3539-45.</a></li> <li>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. <a href="#">Breast Cancer Res. 11: R3</a></li> <li>7. Eastman, R. .Jr. <i>et al.</i> (2010) Fibroblast growth factor-10 signals development of von Brunn's nests in the exstrophic bladder. <a href="#">Am J Physiol Renal Physiol. 299:F1094-110.</a></li> <li>8. Stumpf, P and Welsch, U. (2004) Secretory and defensive functions of the duct system of the lactating mammary gland of the African elephant (<i>Loxodonta africana</i>, Proboscidea) <a href="#">Zoomorphology 123:155-67</a></li> <li>9. Alam H <i>et al.</i> (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. <a href="#">J Cell Sci. 124 (Pt 12): 2096-106.</a></li> <li>10. Clark, S.E. <i>et al.</i> (2011) Molecular subtyping of DCIS: heterogeneity of breast cancer reflected in pre-invasive disease. <a href="#">Br J Cancer. 104: 120-7.</a></li> <li>11. Hale, L.P. and Markert, M.L. (2004) Corticosteroids regulate epithelial cell differentiation and Hassall body formation in the human thymus. <a href="#">J Immunol. 172: 617-24.</a></li> <li>12. Takahashi, C. <i>et al.</i> (2010) Newly established cell lines from mouse oral epithelium regenerate</li> </ol>

- teeth when combined with dental mesenchyme. [In Vitro Cell Dev Biol Anim. 46: 457-68.](#)
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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee**

18 months from date of despatch.

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**Health And Safety Information**

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

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Human Anti Mouse IgG3 (HCA039...) [FITC](#), [HRP](#)

Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@680](#),  
[DyLight@800](#), [FITC](#), [HRP](#)

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