# Datasheet: MCA2380

| | |
|---|---|
| **Description:** | MOUSE ANTI HUMAN LCK |
| **Specificity:** | LCK |
| **Format:** | Purified |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | LCK-01 |
| **Isotype:** | IgG1 |
| **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) | ▪ | | | |
| Immunohistology - Frozen | ▪ | | | |
| Immunohistology - Paraffin | | | ▪ | |
| ELISA | | | ▪ | |
| Immunoprecipitation | ▪ | | | |
| Western Blotting | ▪ | | | |

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** | Does not react with:Mouse |
| **Product Form** | Purified IgG - liquid |
| **Preparation** | Purified IgG prepared by affinity chromatography on Protein A |
| **Buffer Solution** | Phosphate buffered saline |
| **Preservative Stabilisers** | 0.09% Sodium Azide |
| **Approx. Protein Concentrations** | IgG concentration 1.0 mg/ml |

| | |
|---|---|
| **Immunogen** | Synthetic peptide corresponding to amino acids 22-36 of human lck. |
| **External Database Links** | **UniProt:**<br>P06239 Related reagents<br><br>**Entrez Gene:**<br>3932 LCK Related reagents |
| **Specificity** | **Mouse anti Human Lck antibody, clone Lck-01** recognizes Tyrosine-protein kinase Lck, also known as Lck, p56$^{lck}$, Leukocyte C-terminal Src kinase, Lymphocyte cell-specific protein-tyrosine kinase, Protein YT16, Proto-oncogene Lck or T cell-specific protein-tyrosine kinase. Lck is a 508 amino acid ~56 kDa cytosolic non-receptor protein tyrosine kinase, primarily expressed in T lymphocytes and natural killer cells.<br><br>Lck is a pivotal enzyme for normal T cell development and TCR-mediated signal transduction. Lck is physically associated with the cytoplasmic region of T cell specific molecules CD4 and CD8 (Bolen & Veillette 1989) and plays an important role in the phosphorylation of several proteins further downstream in the T cell signalling cascade (Veillette *et al.* 1988).<br><br>Mutations of the Lck gene can lead to immunodeficiency 22 (IMD22), a condition characterized by T-cell dysfunction, patients presenting with recurrent infections, diarrhea and general malaise (Goldman *et al.* 1998). |
| **Flow Cytometry** | Use 10ul of the suggested working dilution to label 1x10$^6$ cells in 100ul. |
| **Western Blotting** | Clone LCK-01 detects a band of approximately 56kDa in Jurkat cell lysates. |
| **References** | 1. Romagnoli, P. *et al.* (2001) A potential role for protein tyrosine kinase p56(lck) in rheumatoid arthritis synovial fluid T lymphocyte hyporesponsiveness. Int Immunol. 13 (3): 305-12.<br>2. Cebecauer, M. *et al.* (1998) Incorporation of leucocyte GPI-anchored proteins and protein tyrosine kinases into lipid-rich membrane domains of COS-7 cells. Biochem Biophys Res Commun. 243 (3): 706-10.<br>3. Kumar, S. *et al.* (2011) Disruption of HLA-DR raft, deregulations of Lck-ZAP-70-Cbl-b cross-talk and miR181a towards T cell hyporesponsiveness in leprosy. Mol Immunol. 48 (9-10): 1178-90.<br>4. Cemerski, S. *et al.* (2003) Oxidative-stress-induced T lymphocyte hyporesponsiveness is caused by structural modification rather than proteasomal degradation of crucial TCR signaling molecules. Eur J Immunol. 33 (8): 2178-85. |
| **Storage** | Store at +4$^o$C or at -20$^o$C if preferred.<br>Storage in frost-free freezers is not recommended.<br>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. |
| **Shelf Life** | 18 months from date of despatch. |
| **Health And Safety Information** | Material Safety Datasheet documentation #10040 available at:<br>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 (STAR76...) | RPE |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | Alk. Phos., HRP |
| Goat Anti Mouse IgG (H/L) (STAR117...) | Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP |
| Rabbit Anti Mouse IgG (STAR9...) | FITC |
| Goat Anti Mouse IgG (STAR77...) | HRP |
| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Goat Anti Mouse IgG (Fc) (STAR120...) | FITC, HRP |
| Rabbit Anti Mouse IgG (STAR8...) | DyLight®800 |
| Goat Anti Mouse IgG (STAR70...) | FITC |
| Rabbit Anti Mouse IgG (STAR13...) | HRP |
| Human Anti Mouse IgG1 (HCA036...) | HRP |

## Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)


**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


'M313805:180403'

**Printed on 26 May 2018**

© 2018 Bio-Rad Laboratories Inc | Legal | Imprint