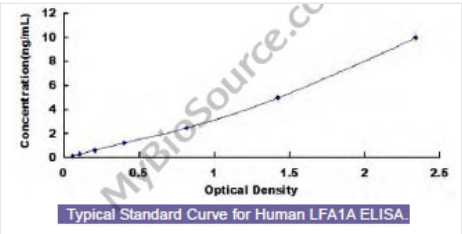
# Lymphocyte Function Associated Antigen 1 Alpha (LFA1a) ELISA Kit for Human

## PRODUCT OVERVIEW

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| **Product Name** | Lymphocyte Function Associated Antigen 1 Alpha (LFA1a), ELISA Kit |
| **Full Product Name** | Human Lymphocyte Function Associated Antigen 1 Alpha (LFA1a) ELISA Kit |
| **Product Gene Name** | LFA1a elisa kit |
| **Product Synonym Names** | CD11a; ITG-AL; LFA-1; LFA1-A; ITGAL; Integrin,Alpha L; CD11 antigen-like family member A; Leukocyte function-associated molecule 1 alpha chain |
| **Species Reactivity** | Human |
| **Assay Type** | Sandwich |
| **Samples** | Tissue homogenates, cell lysates and other biological fluids. |
| **Detection Range** | 0.156-10ng/mL |
| **Sensitivity** | 0.055ng/mL |
| **Specificity** | This assay has high sensitivity and excellent specificity for detection of LFA1A. No significant cross-reactivity or interference between LFA1A and analogues was observed. |
| **Preparation and Storage** | For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C. |
| **Inter-assay Precision** | Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level LFA1A were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12% |
| **Intra-assay Precision** | Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level LFA1A were tested 20 times on one plate, respectively. Intra-Assay: CV<10% |
| **Molecular Weight** | 119,224 Da |
| **OMIM** | Y00796 mRNA |
| **3D Structure** | ModBase 3D Structure for P20701 |
| **ISO Certification** | Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory. |
| **Related Product Information for LFA1a elisa kit** | Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of LFA1A in human tissue homogenates, cell lysates and other biological fluids.<br><br>Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to LFA1A. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to LFA1A. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain LFA1A, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of LFA1A in the samples is then determined by comparing the O.D. of the samples to the standard curve. |
| **Other Notes** | Small volumes of LFA1a elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

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| **Searchable Terms for LFA1a purchase** | MBS454370 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Lymphocyte Function Associated Antigen 1 Alpha (LFA1a) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing LFA1a. The ELISA analytical biochemical technique of the MBS454370 kit is based on LFA1a antibody-LFA1a antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect LFA1a antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, LFA1a. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%). |




**Typical Testing Data/Standard Curve (for reference only) of LFA1a elisa kit**

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for LFA1a. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 167466217 |
| **NCBI GeneID** | 3683 |
| **NCBI Accession #** | NP_001107852.1 |
| **UniProt Primary Accession #** | P20701 |
| **UniProt Secondary Accession #** | O43746; Q45H73; Q96HB1; Q9UBC8 |
| **UniProt Related Accession #** | P20701 |
| **GenBank Nucleotide #** | NM_001114380.1 |
| **NCBI Official Full Name** | integrin alpha-L isoform b |
| **NCBI Official Synonym Full Names** | integrin subunit alpha L |
| **NCBI Official Symbol** | ITGAL |
| **NCBI Official Synonym Symbols** | CD11A; LFA-1; LFA1A |
| **UniProt Protein Name** | Integrin alpha-L |
| **UniProt Synonym Protein Names** | CD11 antigen-like family member A; Leukocyte adhesion glycoprotein LFA-1 alpha chain; LFA-1A; Leukocyte function-associated molecule 1 alpha chain; CD_antigen: CD11a |
| **UniProt Gene Name** | ITGAL |
| **UniProt Synonym Gene Names** | CD11A; LFA-1A |
| **NCBI Protein Information** | integrin alpha-L |
| **NCBI Summary for LFA1a** | ITGAL encodes the integrin alpha L chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form the integrin lymphocyte function-associated antigen-1 (LFA-1), which is expressed on all leukocytes. LFA-1 plays a central role in leukocyte intercellular adhesion through interactions with its ligands, ICAMs 1-3 (intercellular adhesion molecules 1 through 3), and also functions in lymphocyte costimulatory signaling. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008] |

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| **UniProt Comments for LFA1a** | Integrin alpha-L/beta-2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. Integrin alpha-L/beta-2 is also a receptor for F11R (PubMed:11812992, PubMed:15528364). Involved in a variety of immune phenomena including leukocyte-endothelial cell interaction, cytotoxic T-cell mediated killing, and antibody dependent killing by granulocytes and monocytes. Contributes to natural killer cell cytotoxicity (PubMed:15356110). Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils (PubMed:11812992). Required for generation of common lymphoid progenitor cells in bone marrow, indicating a role in lymphopoiesis (). Integrin alpha-L/beta-2 in association with ICAM3, contributes to apoptotic neutrophil phagocytosis by macrophages (PubMed:23775590). |
| **Research Articles on LFA1a** | **1.** Suggest possible role for lymphocyte CD11a in the pathogenesis immune thrombocytopenia. |
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