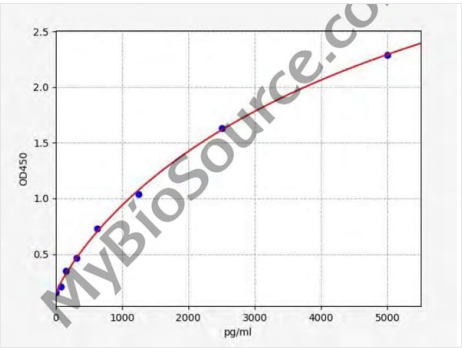
# E3 Ubiquitin-Protein Ligase CBL-B (CBLB) ELISA Kit for Human

## PRODUCT OVERVIEW

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| **Product Name** | E3 ubiquitin-protein ligase CBL-B (CBLB), ELISA Kit |
| **Full Product Name** | Human E3 ubiquitin-protein ligase CBL-B ELISA Kit |
| **Product Gene Name** | CBLB elisa kit |
| **Product Synonym Names** | CBLB/Signal transduction protein CBL-B/SH3-binding protein CBL-B/Casitas B-lineage lymphoma proto-oncogene b/RING finger protein 56 |
| **Species Reactivity** | Human |
| **Assay Type** | Sandwich |
| **Samples** | Serum, plasma, tissue homogenates and other biological fluids |
| **Detection Range** | 78.125-5000pg/ml |
| **Sensitivity** | 46.875pg/ml |
| **Specificity** | This assay has high sensitivity and excellent specificity for detection of CBLB. No significant cross-reactivity or interference between CBLB and analogues was observed. |
| **Preparation and Storage** | Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C |
| **Inter-assay Precision** | CV<10% |
| **Intra-assay Precision** | CV<8% |
| **Molecular Weight** | 86,582 Da |
| **OMIM** | 604491 |
| **ISO Certification** | Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory. |
| **Related Product Information for CBLB elisa kit** | Principle of the Assay: This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Capture antibody was pre-coated onto 96-well plates. And the biotin conjugated antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and washed with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the target amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of target can be calculated. |
| **Other Notes** | Small volumes of CBLB 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. |
| **Searchable Terms for CBLB purchase** | MBS763333 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the E3 ubiquitin-protein ligase CBL-B (CBLB) 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 CBLB. The ELISA analytical biochemical technique of the MBS763333 kit is based on CBLB antibody-CBLB antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CBLB antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CBLB. 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 CBLB elisa kit**

## ADDITIONAL DETAILS

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

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| **NCBI GI #** | 54112420 |
| **NCBI GeneID** | 868 |
| **NCBI Accession #** | NP_733762.2 |
| **UniProt Secondary Accession #** | Q13192; Q13193; Q3LIC0; Q63Z43; Q8IVC5; A8K9S7; B7WNM4 |
| **UniProt Related Accession #** | Q13191 |
| **GenBank Nucleotide #** | NM_170662.3 |
| **NCBI Official Full Name** | E3 ubiquitin-protein ligase CBL-B |
| **NCBI Official Synonym Full Names** | Cbl proto-oncogene B, E3 ubiquitin protein ligase |
| **NCBI Official Symbol** | CBLB |
| **NCBI Official Synonym Symbols** | Cbl-b; RNF56; Nbla00127 |
| **UniProt Protein Name** | E3 ubiquitin-protein ligase CBL-B |
| **UniProt Synonym Protein Names** | Casitas B-lineage lymphoma proto-oncogene b; RING finger protein 56; SH3-binding protein CBL-B; Signal transduction protein CBL-B |
| **Protein Family** | E3 ubiquitin-protein ligase |
| **UniProt Gene Name** | CBLB |
| **UniProt Synonym Gene Names** | RNF56 |
| **UniProt Entry Name** | CBLB_HUMAN |
| **NCBI Protein Information** | E3 ubiquitin-protein ligase CBL-B |

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| **UniProt Comments for CBLB** | Cbl-b: E3 ubiquitin-protein ligase which accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes, and transfers it to substrates, generally promoting their degradation by the proteasome. Negatively regulates TCR (T-cell receptor), BCR (B- cell receptor) and FCER1 (high affinity immunoglobulin epsilon receptor) signal transduction pathways. In naive T-cells, inhibits VAV1 activation upon TCR engagement and imposes a requirement for CD28 costimulation for proliferation and IL-2 production. Also acts by promoting PIK3R1/p85 ubiquitination, which impairs its recruitment to the TCR and subsequent activation. In activated T- cells, inhibits PLCG1 activation and calcium mobilization upon restimulation and promotes anergy. In B-cells, acts by ubiquitinating SYK and promoting its proteasomal degradation. May also be involved in EGFR ubiquitination and internalization. Interacts with SH3 domain-containing proteins LCK, CRK and SORBS1. Interacts with LCP2 and ZAP70. May interact with CBL. Interacts with SH3 domain-containing proteins VAV1, FYN, FGR, PLCG1, GRB2, CRKL, PIK3R1 and SH3KBP1/CIN85. Identified in heterotrimeric complexes with SH3KBP1/CIN85, CD2AP and ARHGEF7, where one CBLB peptide binds two copies of the other protein. Interacts with poly-ubiquitinated proteins. Dimerization is required for the binding of poly-ubiquitin, but not for the binding of mono-ubiquitin. Expressed in placenta, heart, lung, kidney, spleen, ovary and testis, as well as fetal brain and liver and hematopoietic cell lines, but not in adult brain, liver, pancreas, salivary gland, or skeletal muscle. Present in lymphocytes. 4 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Ligase; Calcium-binding; Ubiquitin ligase; EC 6.3.2.-; Ubiquitin conjugating system; Adaptor/scaffold<br><br>Chromosomal Location of Human Ortholog: 3q13.11<br><br>Cellular Component: cytoplasm; cytosol; lipid raft; nucleoplasm; plasma membrane<br><br>Molecular Function: calcium ion binding; ligase activity; phosphotyrosine binding; protein binding; protein kinase binding; signal transducer activity; ubiquitin-protein ligase activity; zinc ion binding<br><br>Biological Process: cell surface receptor linked signal transduction; immune response; negative regulation of alpha-beta T cell proliferation; negative regulation of T cell receptor signaling pathway; NLS-bearing substrate import into nucleus; positive regulation of protein catabolic process; positive regulation of T cell anergy; protein ubiquitination; response to gravity; response to hormone stimulus; signal transduction; T cell activation |
| **Research Articles on CBLB** | **1.** findings suggest that Cbl-b limits NGF-TrkA signaling to control the length of neurites. |
| **Precautions** | All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines. |
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