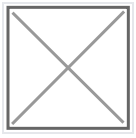
# CREB1 (Cyclic AMP-Responsive Element-Binding Protein 1) (CREB1) ELISA Kit for Human

## PRODUCT OVERVIEW

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| **Product Name** | CREB1 (Cyclic AMP-responsive element-binding protein 1), ELISA Kit |
| **Full Product Name** | Human CREB1 (Cyclic AMP-responsive element-binding protein 1) ELISA Kit |
| **Product Gene Name** | CREB1 elisa kit |
| **Product Synonym Names** | Cyclic AMP-responsive element-binding protein 1; CREB-1; cAMP-responsive element-binding protein 1; CREB1 |
| **Species Reactivity** | Human |
| **Assay Type** | Sandwich |
| **Samples** | Serum, plasma, tissue homogenates and other biological fluids |
| **Detection Range** | 15.625-1000pg/ml |
| **Sensitivity** | 9.375pg/ml |
| **Specificity** | This assay has high sensitivity and excellent specificity for detection of CREB1. No significant cross-reactivity or interference between CREB1 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** | 36,688 Da |
| **Chromosome Location** | Chromosome: 2; NC_000002.11 (208394616..208470284). Location: 2q34 |
| **OMIM** | 123810 |
| **3D Structure** | ModBase 3D Structure for P16220 |
| **ISO Certification** | Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory. |
| **Related Product Information for CREB1 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 CREB1 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 CREB1 purchase** | MBS7615216 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the CREB1 (Cyclic AMP-responsive element-binding protein 1) 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 CREB1. The ELISA analytical biochemical technique of the MBS7615216 kit is based on CREB1 antibody-CREB1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CREB1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CREB1. 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 CREB1 elisa kit**

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CREB1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4758054 |
| **NCBI GeneID** | 1385 |
| **NCBI Accession #** | NP_004370.1 |
| **UniProt Primary Accession #** | P16220 |
| **UniProt Secondary Accession #** | P21934; Q6V963; Q9UMA7 |
| **UniProt Related Accession #** | P16220 |
| **GenBank Nucleotide #** | NM_004379.3 |
| **NCBI Official Full Name** | cyclic AMP-responsive element-binding protein 1 isoform A |
| **NCBI Official Synonym Full Names** | cAMP responsive element binding protein 1 |
| **NCBI Official Symbol** | CREB1 |
| **NCBI Official Synonym Symbols** | CREB |
| **UniProt Protein Name** | Cyclic AMP-responsive element-binding protein 1 |
| **Protein Family** | Cyclic AMP-responsive element-binding protein |
| **UniProt Gene Name** | CREB1 |
| **UniProt Synonym Gene Names** | CREB-1 |
| **UniProt Entry Name** | CREB1_HUMAN |
| **NCBI Protein Information** | cyclic AMP-responsive element-binding protein 1; CREB-1; transactivator protein; active transcription factor CREB; cAMP-response element-binding protein-1; cAMP-responsive element-binding protein 1 |
| **NCBI Summary for CREB1** | This gene encodes a transcription factor that is a member of the leucine zipper family of DNA binding proteins. This protein binds as a homodimer to the cAMP-responsive element, an octameric palindrome. The protein is phosphorylated by several protein kinases, and induces transcription of genes in response to hormonal stimulation of the cAMP pathway. Alternate splicing of this gene results in two transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008] |

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| **UniProt Comments for CREB1** | CREB: a transcription factor of the leucine zipper family of DNA binding proteins. Binds as a homodimer to the cAMP-responsive element (CRE). Phosphorylated by several protein kinases, and induces transcription of genes in response to hormonal stimulation of the cAMP pathway. Two splice-variant isoforms have been described.<br><br>Protein type: Transcription factor; DNA-binding<br><br>Chromosomal Location of Human Ortholog: 2q34<br><br>Cellular Component: nucleoplasm; nucleus<br><br>Molecular Function: RNA polymerase II transcription factor activity, enhancer binding; protein binding; enzyme binding; transcription cofactor activity; transcription factor activity<br><br>Biological Process: transcription from RNA polymerase II promoter; circadian rhythm; lactation; axon guidance; response to glucagon stimulus; viral reproduction; nerve growth factor receptor signaling pathway; positive regulation of osteoclast differentiation; positive regulation of transcription, DNA-dependent; stress-activated MAPK cascade; positive regulation of multicellular organism growth; toll-like receptor 3 signaling pathway; signal transduction; protein amino acid phosphorylation; toll-like receptor 10 signaling pathway; response to organic substance; toll-like receptor 5 signaling pathway; synaptic transmission; toll-like receptor 4 signaling pathway; response to drug; epidermal growth factor receptor signaling pathway; mitochondrion organization and biogenesis; Notch signaling pathway; fibroblast growth factor receptor signaling pathway; phosphoinositide-mediated signaling; protein stabilization; secretory granule organization and biogenesis; MyD88-independent toll-like receptor signaling pathway; organelle organization and biogenesis; positive regulation of hormone secretion; positive regulation of lipid biosynthetic process; memory; toll-like receptor 2 signaling pathway; MyD88-dependent toll-like receptor signaling pathway; phospholipase C activation; pituitary gland development; toll-like receptor signaling pathway; positive regulation of fat cell differentiation; innate immune response; positive regulation of transcription from RNA polymerase II promoter; toll-like receptor 9 signaling pathway; regulation of cell size<br><br>Disease: Histiocytoma, Angiomatoid Fibrous |
| **Research Articles on CREB1** | **1.** A significant interaction shows that CREB1 rs4675690 polymorphism modulates the effect of childhood sexual abuse on adulthood anger-trait levels. |
| **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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