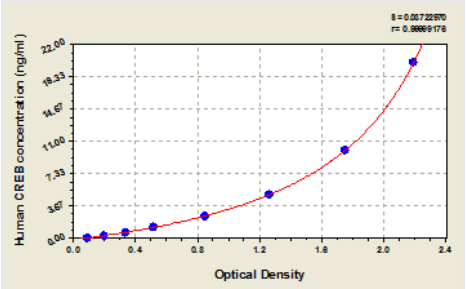
Camp Responsive Element Binding Protein 1 (CREB1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	cAMP responsive element binding protein 1 (CREB1), ELISA Kit
Full Product Name	Human cAMP response element-binding protein, CREB ELISA Kit
Product Gene Name	CREB1 elisa kit
Product Synonym Names	Human cAMP response element-binding protein (CREB) ELISA Kit; CREB; MGC9284; OTTHUMP00000206660; active transcription factor CREB; cAMP-response element-binding protein-1; transactivator protein; cAMP responsive element binding protein 1
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, plasma, tissue homogenates
Detection Range	0.312 ng/ml -20 ng/ml.
Sensitivity	The minimum detectable dose of human CREB is typically less than 0.078 ng/ml. The sensitivity of this assay, or Lower Limit of Detection (LLD) was defined as the lowest protein concentration that could be differentiated from zero. It was determined the mean O.D value of 20 replicates of the zero standard added by their three standard deviations.
Specificity	This assay has high sensitivity and excellent specificity for detection of human CREB. No significant cross-reactivity or interference between human CREB and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Inter-assay Precision	Inter-assay Precision (Precision between assays): CV%<10%. Three samples of known concentration were tested in twenty assays to assess.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV%<8%. Three samples of known concentration were tested twenty times on one plate to assess.
Molecular Weight	36,688 Da
OMIM	gene 612160
3D Structure	ModBase 3D Structure for P16220
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CREB1 elisa kit	Principle of the assay: This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for CREB has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any CREB present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for CREB is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of CREB bound in the initial step. The color development is stopped and the intensity of the color is measured.
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	MBS704721 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the cAMP responsive element binding protein 1 (CREB1) 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 MBS704721 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.

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; cAMP-responsive element-binding protein 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]

UniProt Comments for CREB1	**Function:** Phosphorylation-dependent transcription factor that stimulates transcription upon binding to the DNA cAMP response element (CRE), a sequence present in many viral and cellular promoters. Transcription activation is enhanced by the TORC coactivators which act independently of Ser-133 phosphorylation. Involved in different cellular processes including the synchronization of circadian rhythmicity and the differentiation of adipose cells.
Research Articles on CREB1	**1.** Data suggest that MSK1 and MSK2 are the major CREB kinases in fibroblast-like synoviocytes from rheumatoid arthritis patients stimulated with lysophosphatidic acid and that phosphorylation of CREB1 at Ser-133 plays a significant role in IL-8 production.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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