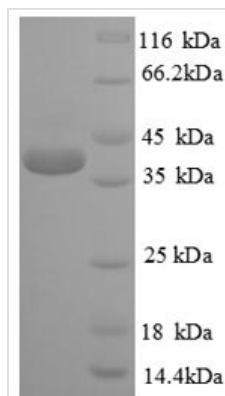




# Recombinant Human Cyclic AMP-responsive element-binding protein 1 (CREB1)

<b>Product Code</b>	CSB-EP005947HU
<b>Relevance</b>	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.
<b>Abbreviation</b>	Recombinant Human CREB1 protein
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	P16220
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	MTMESGAENQQSGDAAVTEAENQQMTVQAQPQIATLAQVSMPTAAHATSSAP TVTLVQLPNGQTVQVHGVIAAQPSVIQSPQVQTVQSSCKDLKRLFSGTQISTI AESEDSQESVDSVTDSQKRREILSRPSYRKILNDLSSDAPGVPRIIEEKSEEE TSAPAITTVTVPTPIYQTSSGQYIAITQGGAIQLANNGTDGVQGLQTLTMTNAAA TQPGTTILQYAQTDDGQQILVPSNQVVVQAASGDVQTYQIRTAPTSTIAPGVVM ASSPALPTQPAEEAARKREVRLMKNREAARECRRKKKEYVKLENRVAVLEN QNKTLEELKALKDLYCHKSD
<b>Research Area</b>	Immunology
<b>Source</b>	E.coli
<b>Target Names</b>	CREB1
<b>Expression Region</b>	1-341aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-tagged
<b>Mol. Weight</b>	40.7kDa
<b>Protein Length</b>	Full Length
<b>Image</b>	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The recombinant Human CREB1 was expressed with the amino acid range of 1-341. The expected molecular weight for the CREB1 protein is calculated to be 40.7 kDa. This CREB1 recombinant protein is manufactured in e.coli. The CREB1 gene fragment has been modified by fusing the N-terminal 6xHis tag, providing convenience in detecting and purifying the recombinant CREB1 protein during the following stages.

Human cyclic AMP-responsive element-binding protein 1 (CREB1) is a transcription factor that plays a crucial role in various cellular processes. Upon activation by signaling pathways such as cAMP-dependent pathways, CREB1 undergoes phosphorylation, leading to its binding to cAMP response elements (CREs) in target gene promoters. CREB1 regulates the transcription of genes involved in cell growth, differentiation, survival, and memory formation. Its diverse functions contribute to cellular responses in the nervous system, immune system, and other tissues. Research on CREB1 spans areas such as neurobiology, cancer, metabolism, and circadian rhythms. Understanding CREB1's intricate regulatory role provides insights into fundamental cellular processes and potential therapeutic targets for various diseases.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.