



**CREB3 Blocking Peptide (C-term)** 

Synthetic peptide Catalog # BP21435b

## **Specification**

CREB3 Blocking Peptide (C-term) - Product Information

Primary Accession <u>043889</u>

CREB3 Blocking Peptide (C-term) - Additional Information

**Gene ID 10488** 

### **Other Names**

Cyclic AMP-responsive element-binding protein 3, CREB-3, cAMP-responsive element-binding protein 3, Leucine zipper protein, Luman, Transcription factor LZIP-alpha, Processed cyclic AMP-responsive element-binding protein 3, N-terminal Luman, Transcriptionally active form, CREB3, LZIP

# **Target/Specificity**

The synthetic peptide sequence is selected from aa 311-324 of HUMAN CREB3

## **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

# **Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CREB3 Blocking Peptide (C-term) - Protein Information

Name CREB3

Synonyms LZIP

# CREB3 Blocking Peptide (C-term) - Background

Endoplasmic reticulum (ER)-bound transcription factor that plays a role in the unfolded protein response (UPR). Involved in cell proliferation and migration, tumor suppression and inflammatory gene expression. Plays also a role in the human immunodeficiency virus type 1 (HIV-1) virus protein expression and in the herpes simplex virus-1 (HSV-1) latent infection and reactivation from latency. Isoform 2 plays a role in the unfolded protein response (UPR). Isoform 2 acts as a positive regulator of LKN-1/CCL15-induced chemotaxis signaling of leukocyte cell migration. Isoform 2 may play a role as a cellular tumor suppressor that is targeted by the hepatitis C virus (HSV) core protein. Isoform 2 represses the VP16-mediated transactivation of immediate early genes of the HSV-1 virus by sequestring host cell factor-1 HCFC1 in the ER membrane of sensory neurons, thereby preventing the initiation of the replicative cascade leading to latent infection. Isoform 3 functions as a negative transcriptional regulator in ligand-induced transcriptional activation of the glucocorticoid receptor NR3C1 by recruiting and activating histone deacetylases (HDAC1, HDAC2 and HDAC6). Isoform 3 decreases the acetylation level of histone H4. Isoform 3 does not promote the chemotactic activity of leukocyte cells.

# CREB3 Blocking Peptide (C-term) - References

Lu R., et al.Mol. Cell. Biol. 17:5117-5126(1997). Freiman R.N., et al.Genes Dev. 11:3122-3127(1997). Jin D.-Y., et al.EMBO J. 19:729-740(2000). Kang H., et al.Mol. Endocrinol. 23:1746-1757(2009). Hayashi M., et al.Submitted (FEB-1997) to the EMBL/GenBank/DDBJ databases.



#### **Function**

Endoplasmic reticulum (ER)-bound sequence-specific transcription factor that directly binds DNA and activates transcription (PubMed:<a href="http://www. uniprot.org/citations/9271389" target=" blank">9271389</a>, PubMed:<a href="http://www.uniprot.org/ci tations/19779205" target=" blank">19779205</a>, PubMed: <a href="http://www.uniprot.org/ci"> tations/10984507" target=" blank">10984507</a>, PubMed:<a href="http://www.uniprot.org/ci tations/15845366" target=" blank">15845366</a>, PubMed:<a href="http://www.uniprot.org/ci tations/16940180" target=" blank">16940180</a>). Plays a role in the unfolded protein response (UPR), promoting cell survival versus ER stress-induced apoptotic cell death (PubMed:<a href="http://www.uniprot.org/c itations/15845366" target="\_blank">15845366</a>, PubMed: <a href="http://www.uniprot.org/ci"> tations/16940180" target=" blank">16940180</a>). Also involved in cell proliferation, migration and differentiation, tumor suppression and inflammatory gene expression. Acts as a positive regulator of LKN- 1/CCL15-induced chemotaxis signaling of leukocyte cell migration (PubMed:<a href="http://www.un iprot.org/citations/19779205" target=" blank">19779205</a>, PubMed:<a href="http://www.uniprot.org/ci tations/15001559" target=" blank">15001559</a>, PubMed:<a href="http://www.uniprot.org/ci tations/17296613" target=" blank">17296613</a>). Associates with chromatin to the HERPUD1 promoter (PubMed:<a href="http://www.uni prot.org/citations/16940180" target=" blank">16940180</a>). Also induces transcriptional activation of chemokine receptors (PubMed:<a href="htt p://www.uniprot.org/citations/18587271" target=" blank">18587271</a>, PubMed:<a href="http://www.uniprot.org/ci tations/17296613" target=" blank">17296613</a>).

### **Cellular Location**

[Isoform 1]: Endoplasmic reticulum membrane; Single-pass type II membrane



protein {ECO:0000255, ECO:0000269|PubMed:12138176}. Golgi apparatus. Note=Colocalizes with HCFC1 in neuronal cell bodies of the trigeminal ganglia (PubMed:10623756). Colocalizes with DCSTAMP in the ER membrane of immature dendritic cell (DC) (PubMed:20546900). Colocalizes with CANX, CCR1, HCFC1 in the ER membrane (PubMed:10623756). [Processed cyclic AMP-responsive element-binding protein 3]: Nucleus. Note=Upon RIP activation the transcriptional active processed cyclic AMP-responsive element-binding protein 3 form translocates into the nucleus. Detected in the nucleus upon dendritic cell maturation and RIP activation. Colocalizes with CREBRF in nuclear foci. Colocalizes with CREBZF in promyelocytic leukemia protein nuclear bodies (PML-NB).

## **Tissue Location**

Ubiquitously expressed (PubMed:9271389, PubMed:19779205). Expressed in dendritic cells (DC). Weakly expressed in monocytes (at protein level) (PubMed:20546900)

# CREB3 Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

• Blocking Peptides