Resource Summary Report

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CRE Binding-protein Target Gene Database

RRID:SCR_008027
Type: Tool

Proper Citation

CRE Binding-protein Target Gene Database (RRID:SCR_008027)

Resource Information

URL: http://natural.salk.edu/CREB/

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Description: CREB target gene database that uses a multi-layered approach to predict, validate and characterize CREB target genes. For each gene, the database tries to provide the following information: 1. CREB binding sites on the promoters 2. Promoter occupancy by CREB 3. Gene activation by cAMP in tissues CREB seems to occupy a large number of promoters in the genome (up to ~5000 in human), and the profiles for CREB promoter occupancy are very similar in different human tissues. However, only a small proportion of CREB occupied genes are induced by cAMP in any cell type, possibly reflecting the requirement of additional regulatory partners that assist in recruitment of the transcriptional apparatus. To use the database, choose the species, select the table you want to search, leave field ("All") and type in the gene you want to search. A table listing the search results will be returned, followed by the description of the table. If no search result is returned, try the official gene symbol or gene ID (locuslink number) from NCBI Entrez Gene to search. Sponsors: This work was supported by National Institutes of Health Grants GM RO1-037828 (to M.M.) and DK068655 (to R.A.Y.).

Synonyms: CREB Database

Resource Type: database, data or information resource

Keywords: expression, gene, activation, camp, camp-response element binding protein (creb), cell, cellular, coactivator, cyclic amp response element binding protein, hormone, human, in vivo, methylation, mouse, nutrient, phosphorylation, promoter, rat, regulatory, rna, signaling, target gene, tissue, transcription, FASEB list

Funding:

Resource Name: CRE Binding-protein Target Gene Database

Resource ID: SCR_008027

Alternate IDs: nif-0000-10201

Record Creation Time: 20220129T080245+0000

Record Last Update: 20250517T055846+0000

Ratings and Alerts

No rating or validation information has been found for CRE Binding-protein Target Gene Database.

No alerts have been found for CRE Binding-protein Target Gene Database.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 31 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID.

Zeng S, et al. (2024) Local TSH/TSHR signaling promotes CD8+ T cell exhaustion and immune evasion in colorectal carcinoma. Cancer communications (London, England), 44(11), 1287.

Cai W, et al. (2022) Melanocortin 1 receptor activation protects against alpha-synuclein pathologies in models of Parkinson's disease. Molecular neurodegeneration, 17(1), 16.

Sheikh A, et al. (2022) Enterotoxigenic Escherichia coli heat-labile toxin drives enteropathic changes in small intestinal epithelia. Nature communications, 13(1), 6886.

Peretti D, et al. (2021) TrkB signaling regulates the cold-shock protein RBM3-mediated neuroprotection. Life science alliance, 4(4).

Xiao G, et al. (2021) Zinc-mediated activation of CREB pathway in proliferation of pulmonary artery smooth muscle cells in pulmonary hypertension. Cell communication and signaling : CCS, 19(1), 103.

Bonneau M, et al. (2021) Functional brain defects in a mouse model of a chromosomal t(1;11) translocation that disrupts DISC1 and confers increased risk of psychiatric illness. Translational psychiatry, 11(1), 135.

Spinelli M, et al. (2020) Neural Stem Cell-Derived Exosomes Revert HFD-Dependent Memory Impairment via CREB-BDNF Signalling. International journal of molecular sciences, 21(23).

Schoenherr C, et al. (2020) The autophagy protein Ambra1 regulates gene expression by supporting novel transcriptional complexes. The Journal of biological chemistry, 295(34), 12045.

Wu J, et al. (2019) Signal regulatory protein alpha initiates cachexia through muscle to adipose tissue crosstalk. Journal of cachexia, sarcopenia and muscle, 10(6), 1210.

Mukherjee S, et al. (2018) CDK5 Inhibition Resolves PKA/cAMP-Independent Activation of CREB1 Signaling in Glioma Stem Cells. Cell reports, 23(6), 1651.

Kinouchi K, et al. (2018) Fasting Imparts a Switch to Alternative Daily Pathways in Liver and Muscle. Cell reports, 25(12), 3299.

Dong E, et al. (2017) Reduced phosphoCREB in Müller glia during retinal degeneration in rd10 mice. Molecular vision, 23, 90.

Parra-Damas A, et al. (2017) CRTC1 mediates preferential transcription at neuronal activity-regulated CRE/TATA promoters. Scientific reports, 7(1), 18004.

Hasel P, et al. (2017) Neurons and neuronal activity control gene expression in astrocytes to regulate their development and metabolism. Nature communications, 8, 15132.

Papadopoulos D, et al. (2016) Dehydroepiandrosterone Sulfate Stimulates Expression of Blood-Testis-Barrier Proteins Claudin-3 and -5 and Tight Junction Formation via a Gn?11-Coupled Receptor in Sertoli Cells. PloS one, 11(3), e0150143.

Upmanyu N, et al. (2016) Ouabain interactions with the ?4 isoform of the sodium pump trigger non-classical steroid hormone signaling and integrin expression in spermatogenic cells. Biochimica et biophysica acta, 1863(11), 2809.

Bulldan A, et al. (2016) Non-classical testosterone signaling mediated through ZIP9 stimulates claudin expression and tight junction formation in Sertoli cells. Cellular signalling, 28(8), 1075.

Iuchi K, et al. (2016) Molecular hydrogen regulates gene expression by modifying the free radical chain reaction-dependent generation of oxidized phospholipid mediators. Scientific reports, 6, 18971.

Dietze R, et al. (2015) Cardiotonic steroid ouabain stimulates expression of blood-testis barrier proteins claudin-1 and -11 and formation of tight junctions in Sertoli cells. Molecular

and cellular endocrinology, 405, 1.

Griesi-Oliveira K, et al. (2015) Modeling non-syndromic autism and the impact of TRPC6 disruption in human neurons. Molecular psychiatry, 20(11), 1350.