abcam

Product datasheet

Human CREBBP knockout HEK-293T cell lysate ab258381

1 Image

Overview

Product name Human CREBBP knockout HEK-293T cell lysate

Product overview

Knockout cell lysate achieved by CRISPR/Cas9.

Parental Cell Line HEK293T
Organism Human

Mutation description Knockout achieved by using CRISPR/Cas9, 4 bp deletion in exon9.

Passage number <20

Knockout validation Sanger Sequencing

Reconstitution notes To use as WB control, resuspend the lyophilizate in 50 μL of LDS* Sample Buffer to have a final

concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M

DTT.

*Usage of SDS sample buffer is not recommended with these lyophilized lysates.

Notes

Lysate preparation: Our lysates are made using RIPA buffer to which we add a protease

inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured*. If you require a native form of the protein please use the live cell version - found **here**. Please refer to our lysis protocol for further details on how our lysates are

prepared.

User storage instructions: Lyophilizate may be stored at 4°C. After reconstitution, store at -

20°C for short-term storage or -80°C for long-term storage.

Access thousands of knockout cell lysates, generated from commonly used cancer cell lines.

See here for more information on knockout cell lysates.

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Properties

Storage instructions

Store at -80°C. Please refer to protocols.

Components	1 kit
ab263010 - Human CREBBP knockout HEK293T cell lysate	1 x 100µg
ab255553 - Human wild-type HEK293T cell lysate	1 x 100µg

Cell type epithelial

STR Analysis Amelogenin X D5S818: 8, 9 D13S317: 12, 14 D7S820: 11 D16S539: 9, 13 vWA: 16, 19 TH01:

7, 9.3 TPOX: 11 CSF1PO: 11, 12

Target

Function

Acetylates histones, giving a specific tag for transcriptional activation. Also acetylates non-histone proteins, like NCOA3 coactivator. Binds specifically to phosphorylated CREB and enhances its transcriptional activity toward cAMP-responsive genes. Acts as a coactivator of ALX1 in the presence of EP300.

Involvement in disease

Note=Chromosomal aberrations involving CREBBP may be a cause of acute myeloid leukemias. Translocation t(8;16)(p11;p13) with MYST3/MOZ; translocation t(11;16)(q23;p13.3) with MLL/HRX; translocation t(10;16)(q22;p13) with MYST4/MORF. MYST3-CREBBP may induce leukemia by inhibiting RUNX1-mediated transcription.

Defects in CREBBP are a cause of Rubinstein-Taybi syndrome type 1 (RSTS1) [MIM:180849]. RSTS1 is an autosomal dominant disorder characterized by craniofacial abnormalities, broad thumbs, broad big toes, mental retardation and a propensity for development of malignancies.

Sequence similarities

Contains 1 bromo domain.
Contains 1 KIX domain.

Contains 2 TAZ-type zinc fingers. Contains 1 ZZ-type zinc finger.

Domain

The KIX domain mediates binding to HIV-1 Tat.

Post-translational modifications

Methylation of the KIX domain by CARM1 blocks association with CREB. This results in the

blockade of CREB signaling, and in activation of apoptotic response. \\

Phosphorylated upon DNA damage, probably by ATM or ATR.

Sumoylation negatively regulates transcriptional activity via the recruitment of DAAX.

Cellular localization

Cytoplasm. Nucleus. Recruited to nuclear bodies by SS18L1/CREST. In the presence of ALX1

relocalizes from the cytoplasm to the nucleus.

Images

Mut	GGCAGACTCGTACATGTCCCCTTCCACTTAGCATAGGCTACCAGGTTTTCCATGCC		
WT	GGCAGACTCGTACATGTCCCCTTCCACTTTCTTAGCATAGGCTACCAGGTTTTCCATGC		
Sanger Sequencing - Human CREBBP knockout HEK293T cell lysate (ab258381)			

Homozygous: 4 bp deletion in exon9

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