



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# CREB-1 (m): 293T Lysate: sc-119446

## BACKGROUND

Eukaryotic gene transcription is regulated by sequence-specific transcription factors that bind modular *cis*-acting promoter and enhancer elements. The ATF/CREB transcription factor family binds the palindromic cAMP response element (CRE) octanucleotide TGACGTCA. The ATF/CREB family includes CREB-1, CREB-2 (also designated ATF-4), ATF-1, ATF-2 and ATF-3. This family of proteins contains highly divergent N-terminal domains, but shares a C-terminal leucine zipper for dimerization and DNA binding. Although CREB can bind to DNA in an unphosphorylated state, it cannot activate transcription. Phosphorylation of CREB on Ser 133 by protein kinase A facilitates its interaction with the CREB-binding protein (CBP) and activates the basal transcription complex. CREB functions in neoglucogenesis through interactions with the nuclear co-activator PGC-1. CREB may play a role in the pathogenesis of type II diabetes and dilated cardiomyopathy.

## REFERENCES

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3. Yamamoto, K.K., Gonzalez, G.A., Biggs, W.H., 3rd and Montminy, M.R. 1988. Phosphorylation-induced binding and transcriptional efficacy of nuclear factor CREB. *Nature* 334: 494-498.
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8. Fentzke, R.C., Korcarz, C.E., Lang, R.M., Lin, H. and Leiden, J.M. 1998. Dilated cardiomyopathy in transgenic mice expressing a dominant-negative CREB transcription factor in the heart. *J. Clin. Invest.* 101: 2415-2426.
9. Herzig, S., Long, F., Jhala, U.S., Hedrick, S., Quinn, R., Bauer, A., Rudolph, D., Schutz, G., Yoon, C., Puigserver, P., Spiegelman, B. and Montminy, M. 2001. CREB regulates hepatic gluconeogenesis through the coactivator PGC-1. *Nature* 413: 179-183.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## CHROMOSOMAL LOCATION

Genetic locus: Creb1 (mouse) mapping to 1 C2.

## PRODUCT

CREB-1 (m): 293T Lysate represents a lysate of mouse CREB-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

CREB-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CREB-1 antibodies. Recommended use: 10-20 µl per lane.

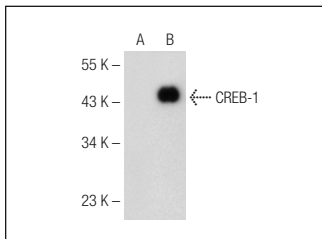
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CREB-1 (D-4): sc-374227 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CREB-1 expression in CREB-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

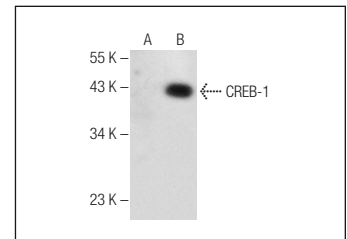
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



CREB-1 (D-4): sc-374227. Western blot analysis of CREB-1 expression in non-transfected: sc-117752 (A) and mouse CREB-1 transfected: sc-119446 (B) 293T whole cell lysates.



CREB-1 (D-12): sc-377154. Western blot analysis of CREB-1 expression in non-transfected: sc-117752 (A) and mouse CREB-1 transfected: sc-119446 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.