

CREM (S-12): sc-34028

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 CREM, CREB-1, CREB-2 (also designated ATF-4), ATF-1, ATF-2 and ATF-3. This family of proteins contain highly divergent N-terminal domains, but share a C-terminal leucine zipper for dimerization and DNA binding. The transcription factor cAMP-responsive element modulator (CREM) is known to play a vital role for male fertility as it has been demonstrated that male mice lacking a functional CREM gene are infertile. In testis, CREM transcriptional activity is controlled through interaction with a tissue-specific partner, activator of CREM in the testis (ACT), which confers a powerful, phosphorylation-independent activation capacity. The function of ACT was found to be regulated by the testis-specific kinesin KIF17b also reactive with canine and syrian hamster.

REFERENCES

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3. Hai, T.W., Liu, F., Coukos, W.J. and Green, M.R. 1989. Transcription factor ATF cDNA clones: an extensive family of leucine zipper proteins able to selectively form DNA-binding heterodimers. *Genes Dev.* 8: 2083-2090.
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5. Blocher, S., Fink, L., Bohle, R.M., Bergmann, M. and Steger, K. 2005. CREM activator and repressor isoform expression in human male germ cells. *Int. J. Androl.* 28: 215-223.

CHROMOSOMAL LOCATION

Genetic locus: CREM (human) mapping to 10p11.21; Crem (mouse) mapping to 18 A1.

SOURCE

CREM (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CREM of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-34028 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-34028 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CREM (S-12) is recommended for detection of CREM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CREM (S-12) is also recommended for detection of CREM in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CREM siRNA (h): sc-37700, CREM siRNA (m): sc-37701, CREM shRNA Plasmid (h): sc-37700-SH, CREM shRNA Plasmid (m): sc-37701-SH, CREM shRNA (h) Lentiviral Particles: sc-37700-V and CREM shRNA (m) Lentiviral Particles: sc-37701-V.

CREM (S-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CREM: 39 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or KNRK nuclear extract: sc-2141.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
 Satisfaction
 Guaranteed

Try **CREM (C-2): sc-390426** or **CREM (22): sc-101530**, our highly recommended monoclonal alternatives to CREM (S-12). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **CREM (C-2): sc-390426**.