**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 contain highly divergent N-terminal domains, but share 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 coactivator PGC-1. CREB may play a role in the pathogenesis of type II diabetes and dilated cardiomyopathy. The gene encoding CREB-1 maps to human chromosome 2q33.3.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CREB1 (human) mapping to 2q33.3, ATF1 (human) mapping to 12q13; Creb1 (mouse) mapping to 1 C2, Atf1 (mouse) mapping to 15 F3.

**SOURCE**

p-CREB-1 (10E9) is a mouse monoclonal antibody raised against synthetic phosphopeptide corresponding to amino acid residues surrounding Ser 133 of CREB-1 of human origin.

**PRODUCT**

Each vial contains 50 µg IgG, kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

**APPLICATIONS**

p-CREB-1 (10E9) is recommended for detection of Ser 133 phosphorylated CREB-1 and Ser 63 phosphorylated ATF-1 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of p-CREB-1: 43 kDa.

Positive Controls: CREB-1 (h): 293 Lysate: sc-111160, CREB-1 (m): 293T Lysate: sc-119446 or HeLa whole cell lysate: sc-2200.

**STORAGE**

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

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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