

# ATF-7 (E-13)-R: sc-19765-R

## BACKGROUND

Eukaryotic gene transcription is regulated by sequence-specific transcription factors, which bind modular *cis* acting promoter and enhancer elements. The cAMP response element (CRE) consists of the palindromic octanucleotide TGACGTC A. There are several CRE binding proteins within the ATF/CREB family, including CREB-1, CREB-2 (also designated ATF-4), ATF-1, ATF-2 and ATF-3. A novel basic leucine zipper (bZIP) protein, designated ATF-7, is closely related to members of the ATF/CREB family of bZIP proteins, with highest homology to ATF-4. ATF-7 physically interacts with the PRL-1 protein-tyrosine phosphatase (PTPase), which is a predominately nuclear, farnesylated PTPase. ATF-7 homodimers bind specifically to CRE elements. ATF-7 is expressed in a number of different tissues and is expressed in association with differentiation. ATF-7 and PRL-1 interact with each other through the bZIP region of ATF-7 and the phosphatase domain of PRL-1. In addition, PRL-1 is able to dephosphorylate ATF-7 *in vitro*.

## REFERENCES

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3. Hoeffler, J.P., Meyer, T.E., Yun, Y., Jameson, J.L. and Habener, J.F. 1988. Cyclic AMP-responsive DNA-binding protein: structure based on a cloned placental cDNA. *Science* 242: 1430-1433.
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6. Kara, C.J., Liou, H.C., Ivashkiv, L.B. and Glimcher, L.H. 1990. A cDNA for a human cyclin AMP response element-binding protein which is distinct from CREB and expressed preferentially in brain. *Mol. Cell. Biol.* 10: 1347-1357.

## CHROMOSOMAL LOCATION

Genetic locus: ATF7 (human) mapping to 12q13.13; Atf7 (mouse) mapping to 15 F3.

## SOURCE

ATF-7 (E-13)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ATF-7 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19765 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-19765 X, 200 µg/0.1 ml.

## APPLICATIONS

ATF-7 (E-13)-R is recommended for detection of ATF-7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

ATF-7 (E-13)-R is also recommended for detection of ATF-7 in additional species, including equine, canine, bovine and porcine.

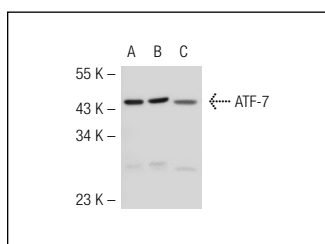
Suitable for use as control antibody for ATF-7 siRNA (h): sc-29759, ATF-7 siRNA (m): sc-29760, ATF-7 shRNA Plasmid (h): sc-29759-SH, ATF-7 shRNA Plasmid (m): sc-29760-SH, ATF-7 shRNA (h) Lentiviral Particles: sc-29759-V and ATF-7 shRNA (m) Lentiviral Particles: sc-29760-V.

ATF-7 (E-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ATF-7: 44 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, ATF-7 (m): 293T Lysate: sc-118604 or RAW 264.7 whole cell lysate: sc-2211.

## DATA



ATF-7 (E-13)-R: sc-19765-R. Western blot analysis of ATF-7 expression in non-transfected 293T: sc-117752 (A), mouse ATF-7 transfected 293T: sc-118604 (B) and RAW 264.7 (C) 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) or our catalog for detailed protocols and support products.