

ATF-2 (1-505): sc-4007

BACKGROUND

Eukaryotic gene transcription is regulated by sequence-specific transcription factors which 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. ATF-2 forms homodimers and heterodimers with c-Jun to initiate CRE-dependent transcription. Phosphorylation of ATF-2 at Thr 69 and Thr 71 by stress-activated kinases is necessary for transcriptional activation. Myc also induces phosphorylation of ATF-2 at Thr 69 and Thr 71 to prolong the half-life of ATF-2. ATF-2 also functions as a histone acetyltransferase (HAT) by specifically acetylating histones H2B and H4 *in vitro*. The gene encoding human ATF-2 maps to chromosome 2q31.1.

REFERENCES

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SOURCE

ATF-2 (1-505) is expressed in *E. coli* as a 68-72 kDa polyhistidine tagged fusion protein corresponding to amino acids 1-505 representing full length ATF-2 of human origin.

PRODUCT

ATF-2 (1-505) is purified from bacterial lysates (>98%) by Ni⁺⁺ affinity column chromatography and supplied as 50 µg purified protein in PBS containing 5 mM DTT and 50% glycerol.

Also available as Western blotting control; 10 µg in 0.1 ml SDS-PAGE loading buffer, ATF-2 (1-505): sc-4007 WB.

APPLICATIONS

ATF-2 (1-505) is suitable as a substrate for JNK and p38 MAP kinase assays.

ATF-2 (1-505): sc-4007 WB is suitable as a Western blotting control for sc-242 and sc-187.

SELECT PRODUCT CITATIONS

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STORAGE

Store ATF-2 (1-505): sc-4007 and sc-4007 WB at -20° C; stable for one year from the date of shipment.

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.