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-20°C

#82870

ATF-2/ATF-7 (A9G1M) Rabbit mAb

Support: +1-978-867-2388 (U.S.)
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orders@cellsignal.comEntrez-Gene ID #1386, 11016
UniProt ID #P15336, P17544

New 01/19

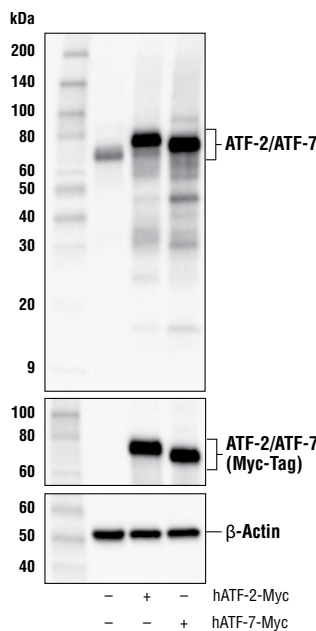
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Applications
W, IP, IHC-P
EndogenousSpecies Cross-Reactivity*
H, M, R, MkMolecular Wt.
65,75 kDaIsotype
Rabbit IgG**

Background: The transcription factor ATF-2 (also called CRE-BP1) binds to both AP-1 and CRE DNA response elements and is a member of the ATF/CREB family of leucine zipper proteins (1). ATF-2 interacts with a variety of viral oncoproteins and cellular tumor suppressors and is a target of the SAPK/JNK and p38 MAP kinase signaling pathways (2-4). Various forms of cellular stress, including genotoxic agents, inflammatory cytokines, and UV irradiation, stimulate the transcriptional activity of ATF-2. Cellular stress activates ATF-2 by phosphorylation of Thr69 and Thr71 (2-4). Both SAPK and p38 MAPK have been shown to phosphorylate ATF-2 at these sites *in vitro* and in cells transfected with ATF-2. Mutations of these sites result in the loss of stress-induced transcription by ATF-2 (2-4). In addition, mutations at these sites reduce the ability of E1A and Rb to stimulate gene expression via ATF-2 (2). ATF-7 is another member of the ATF/CREB family of leucine zipper proteins (5). Similarly, Thr51 and Thr53 (corresponding to Thr69 and Thr71 of ATF-2, respectively) can be phosphorylated under different conditions (6, 7).

Specificity/Sensitivity: ATF-2/ATF-7 (A9G1M) Rabbit mAb recognizes endogenous levels of total ATF-2 and ATF-7 proteins.

Source/Purification: Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human ATF-2 protein.



Western blot analysis of extracts from HeLa cells, mock transfected (-) or transfected with a construct expressing Myc-tagged full-length human ATF-2 protein (hATF-2-Myc; +) or a construct expressing Myc-tagged full-length human ATF-7 protein (hATF-7-Myc; +), using ATF-2/ATF-7 (A9G1M) Rabbit mAb (upper), Myc-Tag (71D10) Rabbit mAb #2278 (middle), and β -Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:400
<i>Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.</i>	
Unmasking buffer: SignalStain® Citrate Unmasking Solution (10X) #14746	
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

- (1) Abdel-Hafiz, H.A. et al. (1992) *Mol Endocrinol* 6, 2079-89.
- (2) Gupta, S. et al. (1995) *Science* 267, 389-93.
- (3) van Dam, H. et al. (1995) *EMBO J* 14, 1798-811.
- (4) Livingstone, C. et al. (1995) *EMBO J* 14, 1785-97.
- (5) Peters, C.S. et al. (2001) *J Biol Chem* 276, 13718-26.
- (6) Camuzeaux, B. et al. (2008) *J Mol Biol* 384, 980-91.
- (7) Maekawa, T. et al. (2010) *EMBO J* 29, 196-208.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

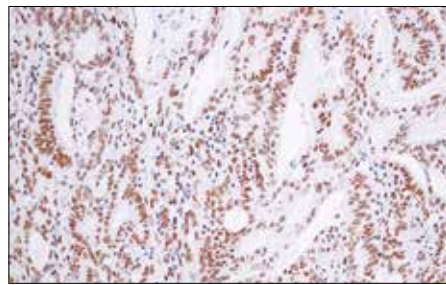
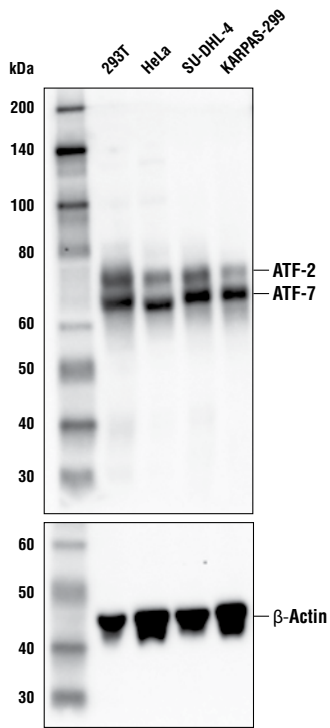
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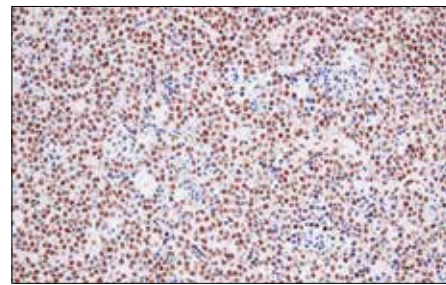
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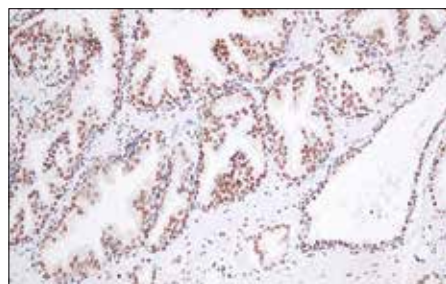
Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



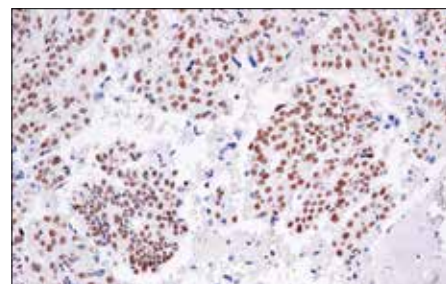
Immunohistochemical analysis of paraffin-embedded human colon carcinoma using ATF-2/ATF-7 (A9G1M) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human non-Hodgkin's lymphoma using ATF-2/ATF-7 (A9G1M) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human prostate carcinoma using ATF-2/ATF-7 (A9G1M) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human endometrioid adenocarcinoma using ATF-2/ATF-7 (A9G1M) Rabbit mAb.

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