

Rabbit anti-Human ATF4 Polyclonal Antibody | anti-ATF4 antibody

Anti-ATF4 Antibody

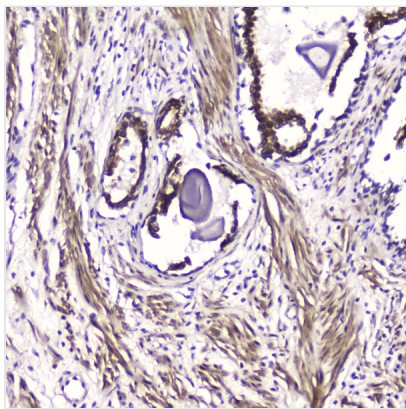
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA124899	Rabbit	Human	Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

ATF4; Polyclonal Antibody; Anti-ATF4 Antibody; Cyclic AMP-dependent transcription factor ATF-4; cAMP-dependent transcription factor ATF-4; Activating transcription factor 4; Cyclic AMP-responsive element-binding protein 2; CREB-2; cAMP-responsive element-binding protein 2; DNA-binding protein TAXREB67; Tax-responsive enhancer element-binding protein 67; TaxREB67; CREB2; TXREB; anti-ATF4 antibody

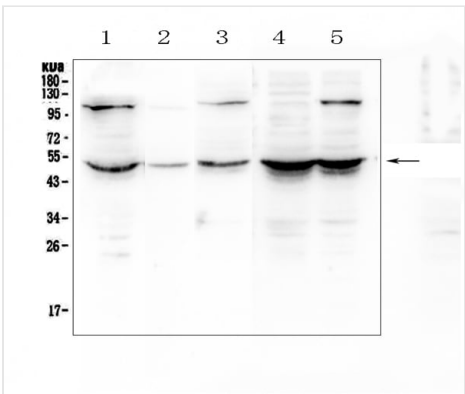
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized
Sequence Length	351
Applicable Applications for anti-ATF4 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence of human ATF4 (KELEKKNEALKERADSLAKEIQYLDLIEEVRKARGKKRVP).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Relevant Detection Systems	It is recommended to use an Enhanced Chemiluminescent Kit with anti-Rabbit IgG for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit for IHC-P.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of ATF4 using anti-ATF4 antibody. ATF4 was detected in paraffin-embedded section of human prostatic cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/mL rabbit anti-ATF4 antibody. ATF4 was detected in paraffin-embedded section of human prostatic cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/mL rabbit anti-ATF4 Antibody overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of ATF4 using anti-ATF4 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human placenta tissue lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human MDA-MB-231 whole cell lysates, Lane 5: human SW620 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ATF4 antigen affinity purified polyclonal antibody at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for ATF4 at approximately 49KD. The expected band size for ATF4 is at 39KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ATF4 antibody	Description: Rabbit IgG polyclonal antibody for ATF4 detection. Tested with WB, IHC-P in Human. Background: ATF4, Activating Transcription Factor 4, is also known as CREB2. ATF4 belongs to the large ATF/CREB family of transcription factors which bind DNA via their basic region and dimerize via their leucine zipper domain to form a variety of homo- and heterodimers to regulate gene transcription. It is identified that members of this family share significant sequence similarity within a leucine zipper DNA-binding motif and an adjacent basic region. The ATF4 gene is mapped to chromosome 22. Unlike CREB, which activates transcription from CRE-containing promoters, CREB2 functions as a specific repressor of CRE-dependent transcription. The transcriptional repressor activity resides within the C-terminal leucine zipper and basic domain region of the CREB2 protein.
References	1. De Angelis, R., Iezzi, S., Bruno, T., Corbi, N., Di Padova, M., Floridi, A., Fanciulli, M., Passananti, C. Functional interaction of the subunit 3 of RNA polymerase II (RPB3) with transcription factor-4 (ATF4). FEBS Lett. 547: 15-19, 2003. 2. Hai, T., Liu, F., Coukos, W. J., Green, M. R. Transcription factor ATF cDNA clones: an extensive family of leucine zipper proteins able to selectively form DNA-binding heterodimers. Genes Dev. 3: 2083-2090, 1989. 3. Karpinski, B. A., Morle, G. D., Huggenvik, J., Uhler, M. D., Leiden, J. M. Molecular cloning of human CREB-2: an ATF/CREB transcription factor that can negatively regulate transcription from the cAMP response element. Proc. Nat. Acad. Sci. 89: 4820-4824, 1992.

NCBI AND UNIPROT INFORMATION

NCBI GI #	33469976
NCBI GeneID	468
NCBI Accession #	NP_001666.2
NCBI GenBank Nucleotide #	NM_001675.4
UniProt Accession #	P18848; Q96AQ3; Q9UH31
Molecular Weight	38,590 Da
NCBI Official Full Name	cyclic AMP-dependent transcription factor ATF-4

NCBI Official Synonym Full Names	activating transcription factor 4
NCBI Official Symbol	ATF4
NCBI Official Synonym Symbols	CREB2; TXREB; CREB-2; TAXREB67
NCBI Protein Information	cyclic AMP-dependent transcription factor ATF-4
UniProt Protein Name	Cyclic AMP-dependent transcription factor ATF-4
UniProt Gene Name	ATF4
UniProt Synonym Gene Names	CREB2; TXREB; cAMP-dependent transcription factor ATF-4; CREB-2; cAMP-responsive element-binding protein 2; TaxREB67

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/atf4-antibody-immunohistochemistry-western-blot-elisa/124899>