

**DATASHEET**
**ATF4 Rabbit Monoclonal Antibody(C1612)**
**CAT. NO. AMA01224**
**KEY FEATURES**

Target	ATF4	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Monoclonal
Applications	WB, IHC, IF/ICC, IP	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.	Storage	at-20°C

**BACKGROUND**

Transcription factor that binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3') and displays two biological functions, as regulator of metabolic and redox processes under normal cellular conditions, and as master transcription factor during integrated stress response (ISR) (consensus: 5'-GTGACGT[AC][AG]-3') and displays two biological functions, as regulator of metabolic and redox processes under normal cellular conditions, and as master transcription factor during integrated stress response (ISR) . Binds to asymmetric CRE's as a heterodimer and to palindromic CRE's as a homodimer . Core effector of the ISR, which is required for adaptation to various stress such as endoplasmic reticulum (ER) stress, amino acid starvation, mitochondrial stress or oxidative stress .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:200
IF/ICC	1:50 - 1:200
IP	1:10 - 1:50

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Recombinant rabbit monoclonal antibody to ATF4
Specificity	Recognizes endogenous levels of ATF4 protein
Antibody Type	Primary antibody, Recombinant
Immunogen	Recombinant fusion protein of human ATF4. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 38 kD; Observed: 55 kD
Form/Buffer	Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.
Alternative Names	CREB2; TXREB; 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
Gene Symbol	ATF4
Entrez Gene	468(Human); 11911(Mouse); 79255(Rat)
SwissProt	P18848(Human); Q06507(Mouse); Q9ES19(Rat)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

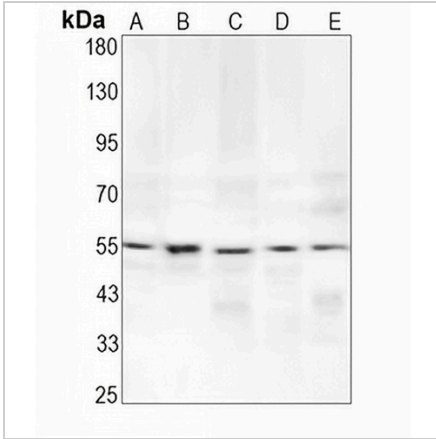
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

**DATASHEET**

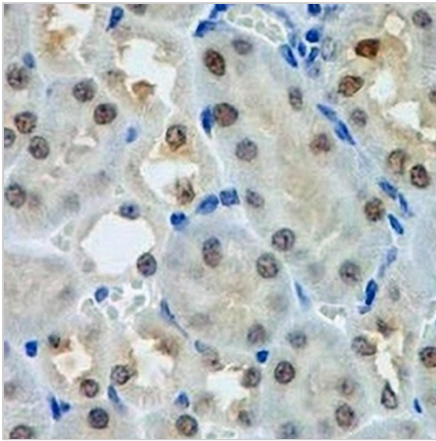
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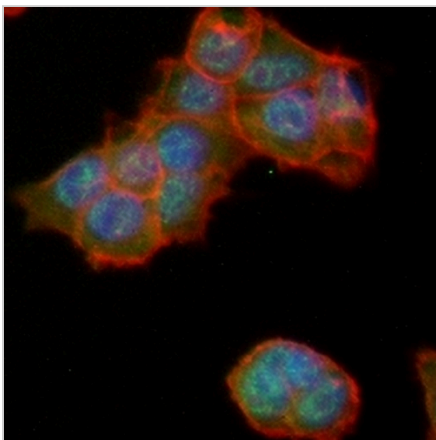
**DATA**



Western blot analysis of ATF4 expression in HT22 (A), BV2 (B), C6 (C), PC12 (D), mouse brain (E) whole cell lysates. (Predicted band size: 38 kD; Observed band size: 55 kD)



Immunohistochemical analysis of ATF4 staining in human kidney formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ATF4 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.