

ATF4 Antibody
ATF4 Antibody, Clone S360A-24
Catalog # ASM10281**Specification**

ATF4 Antibody - Product Information

Application	WB
Primary Accession	P18848
Other Accession	NP_001666.2
Host	Mouse
Isotype	IgG2a
Reactivity	Human, Rat
Clonality	Monoclonal

Description

Mouse Anti-Human ATF4 Monoclonal IgG2a

Target/Specificity

Detects ~60kDa. Does not cross-react with ATF5.

Other Names

Activating Transcription Factor 4 Antibody, ATF 4 Antibody, ATF4 protein Antibody, cAMP-dependent transcription factor ATF-4 Antibody, cAMP-responsive element-binding protein 2 Antibody, CREB 2 Antibody, CREB-2 Antibody, CREB2 Antibody, Cyclic AMP dependent transcription factor ATF 4 Antibody, Cyclic AMP response element binding protein 2 Antibody, Cyclic AMP response element binding protein 2 Antibody, Cyclic AMP-dependent transcription factor ATF-4 Antibody, Cyclic AMP-responsive element-binding protein 2 Antibody, DNA binding protein TAXREB67 Antibody, DNA binding protein TAXREB67 Antibody, DNA-binding protein TAXREB67 Antibody, Tax Responsive Enhancer Element B67 Antibody, Tax-responsive enhancer element-binding protein 67 Antibody, TAXREB67 Antibody, TXREB Antibody

Immunogen

Fusion protein amino acids 25-327 of human ATF4. 86% identical to rat, and 85% identical to mouse. <50% identity with ATF5.

Purification

Protein G Purified

Storage **-20°C**

Storage Buffer

PBS pH 7.4, 50% glycerol, 0.1% sodium azide

Shipping Temperature

Blue Ice or 4°C

Certificate of Analysis

1 µg/ml of SMC-447 was sufficient for detection of ATF4 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization

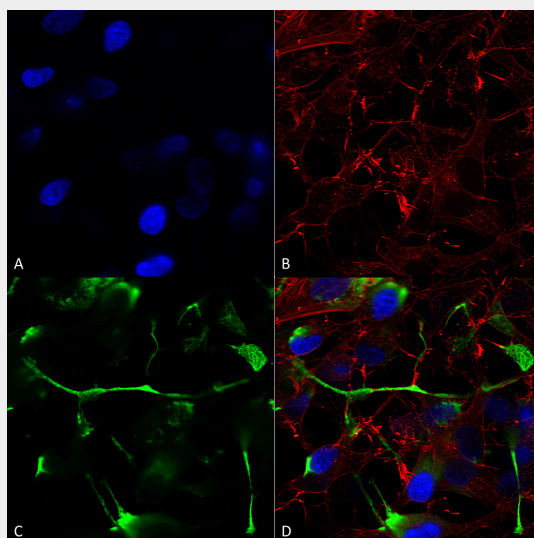
Cytoplasm | Cell Membrane | Nucleus

ATF4 Antibody - Protocols

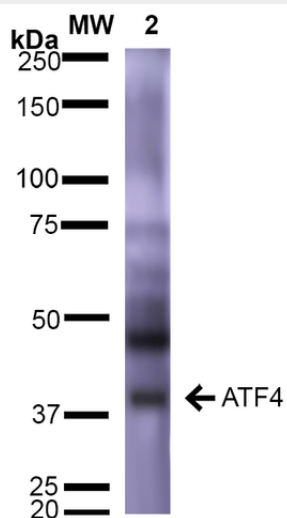
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ATF4 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-ATF4 Monoclonal Antibody, Clone N360A/24 (ASM10281). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-ATF4 Monoclonal Antibody (ASM10281) at 1:200 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) ATF4 Antibody (D) Composite.



Western Blot analysis of Rat Brain showing detection of ~39 kDa (isoform 2) ATF4 protein using Mouse Anti-ATF4 Monoclonal Antibody, Clone N360A/24 (ASM10281). Lane 1: Molecular Weight Ladder (MW). Lane 2: Rat Brain. Load: 15 µg. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-ATF4 Monoclonal Antibody (ASM10281) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:2000 for 60 min at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~39 kDa (isoform 2).

ATF4 Antibody - Background

Cyclic AMP-dependent transcription factor ATF-4 (ATF4) is a basic leucine-zipper (bZip) transcription factor, which regulates amino acid metabolism, DNA damage repair, chromatin remodeling, and apoptosis in response to cellular and ER stress. ATF4 works with various proteins, such as C/EBP homology protein (CHOP), asparagine synthetase (ASNS), and cAMP response element (CRE) among others to mediate cellular stress. ATF4 also regulates glucose homeostasis by suppressing beta-cell proliferation and insulin production. Furthermore, ATF4 targets the histone demethylase JMJD3 to alter chromatin structure and enhance gene transcription in response to amino acid deprivation.