bs-23093R **[Primary Antibody]**

ATF6 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 22926 **SWISS:** P18850

Target: ATF6

Immunogen: KLH conjugated synthetic peptide derived from human ATF6: 301-400/670.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: ATF6 is a transcription factor that acts during endoplasmic reticulum stress by activating unfolded protein response target genes. It binds DNA on the 5'-CCAC[GA]-3'half of the ER stress response element (ERSE) (5'-CCAAT-N(9)-CCAC[GA]-3') and of ERSE II (5'-ATTGG-N-CCACG-3'). Binding to ERSE requires binding of NF-Y to ERSE. ATF6 could also be involved in activation of transcription by the serum response factor. ATF6 exists as a homodimer and heterodimer with ATF6 beta. The dimer interacts with the nuclear transcription factor Y (NF-Y) trimer through direct binding to NF-Y subunit C (NF-YC). It also interacts with the transcription factors GTF2I, YY1 and SRF. Under ER stress the cleaved N-terminal cytoplasmic domain translocates into the nucleus. The basic domain of ATF6 functions as a nuclear localization signal and the basic leucine zipper domain is sufficient for association with the NF-Y trimer and binding to ERSE. During the unfolded protein response an approximately 50 kDa fragment containing the cytoplasmic transcription factor domain is released by proteolysis. The cleavage seems to be performed sequentially by site 1 and site 2 proteases. ATF6 is N glycosylated, phosphorylated in vitro by MAPK14/P38MAPK and belongs to the bZIP family.

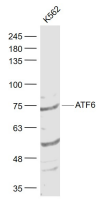
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse, Rat (predicted: Rabbit, Pig, Sheep, Cow, Dog, Horse)

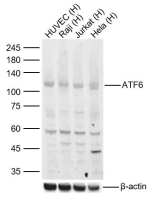
Predicted MW.: 75 kDa

Subcellular Location: Nucleus

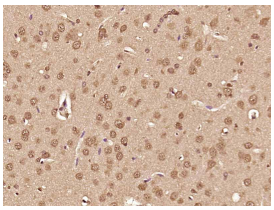
VALIDATION IMAGES



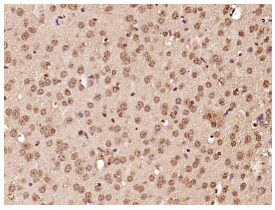
Sample: K562(Human) Cell Lysate at 30 ug Primary: Anti- ATF6 (bs-23093R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 75 kD Observed band size: 75 kD



Sample: Lane 1: Human HUVEC cell Lysates Lane 2: Human Raji cell Lysates Lane 3: Human Jurkat cell Lysates Lane 4: Human Hela cell Lysates Primary: Anti-ATF6 (bs-23093R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 75kDa Observed band size: 110kDa



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ATF6) Polyclonal Antibody, Unconjugated (bs-23093R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ATF6) Polyclonal Antibody, Unconjugated (bs-23093R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=6]** Dajin Pi. et al. Tanshinone IIA Inhibits the Endoplasmic Reticulum Stress-Induced Unfolded Protein Response by Activating the PPARα/FGF21 Axis to Ameliorate Nonalcoholic Steatohepatitis. ANTIOXIDANTS-BASEL. 2024 Sep;13(9):1026 WB ;Mouse. 10.3390/antiox13091026
- **[IF=3.046]** Guozhu Sun. et al. Nrf2 loss of function exacerbates endoplasmic reticulum stress-induced apoptosis in TBI mice. Neurosci Lett. 2022 Jan;770:136400 IHC ;Mouse. 34923041