bs-1531R **[Primary Antibody]**

ATF4 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 468 **SWISS:** P18848

Target: ATF4

Immunogen: KLH conjugated synthetic peptide derived from human ATF4: 251-351/351.

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: ATF4 is a transcription factor that was originally identified as a widely expressed mammalian DNA binding protein that could bind a tax-responsive enhancer element in the LTR of HTLV1. The encoded protein was also isolated and characterized as the cAMP-response element binding protein 2 (CREB2). The protein encoded by this gene belongs to a family of DNA-binding proteins that includes the AP1 family of transcription factors, cAMP-response element binding proteins (CREBs) and CREB-like proteins. These transcription factors share a leucine zipper region that is involved in protein-protein interactions, located C-terminal to a stretch of basic amino acids that functions as a DNA binding domain (referenced from Entrez gene).

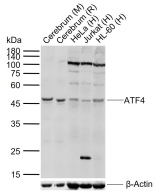
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (0.2μg /test)
ICC/IF (1:100)

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

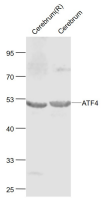
Predicted MW.: 38 kDa

Subcellular Location: Cell membrane ,Cytoplasm ,Nucleus

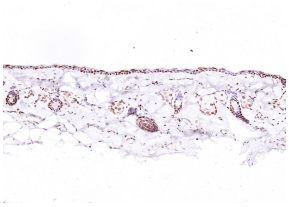
VALIDATION IMAGES



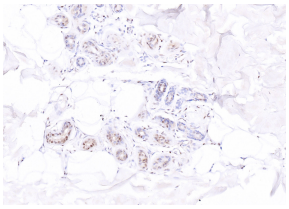
Sample: Lane 1: Mouse Cerebrum tissue lysates Lane 2: Rat Cerebrum tissue lysates Lane 3: Human HeLa cell lysates Lane 4: Human Jurkat cell lysates Lane 5: Human HL-60 cell lysates Primary: Anti-ATF4 (bs-1531R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 38 kDa Observed band size: 47 kDa



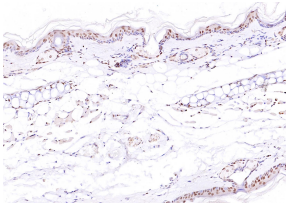
Sample: Cerebrum (Rat) Lysate at 40 ug Cerebrum (Mouse) Lysate at 40 ug Primary: Anti-ATF4 (bs-1531R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 37’ 50 kD Observed band size: 50 kD



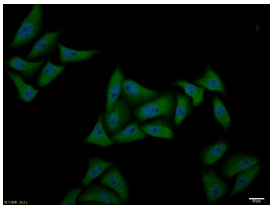
Paraformaldehyde-fixed, paraffin embedded (rat skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ATF4) Polyclonal Antibody, Unconjugated (bs-1531R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human Abdominal skin); Antigen retrieval by



Paraformaldehyde-fixed, paraffin embedded (mouse skin); Antigen retrieval by boiling in

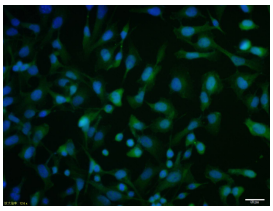


Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking

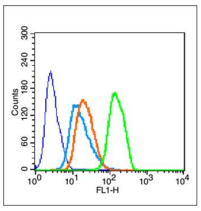
boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ATF4) Polyclonal Antibody, Unconjugated (bs-1531R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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 (ATF4) Polyclonal Antibody, Unconjugated (bs-1531R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

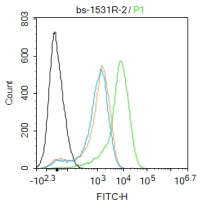
buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (ATF4) polyclonal Antibody, Unconjugated (bs-1531R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



U2OS cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (ATF4) polyclonal Antibody, Unconjugated (bs-1531R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Blank control (blue line): Hela Primary Antibody (green line): Rabbit Anti-Bid antibody (bs-1531R) Dilution: 0.2μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC Dilution: 1μg /test. Protocol The cells were fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control:Mouse spleen. Primary Antibody (green line): Rabbit Anti-ATF4 Alpha antibody (bs-1531R) Dilution: 2μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-FITC Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=12.8]** Xinli Wang. et al. Sustained therapeutic effects of self-assembled hyaluronic acid nanoparticles loaded with α-Ketoglutarate in various osteoarthritis stages. BIOMATERIALS. 2024 Sep;:122845 WB ;Mouse. 39326362
- **[IF=9.274]** Wiebke Sachs. et al. Distinct Modes of Balancing Glomerular Cell Proteostasis in Mucolipidosis Type II and III Prevent Proteinuria. J Am Soc Nephrol. 2020 Aug;31(8):1796-1814 WB,IF ;Mouse. 32641396
- **[IF=7.1]** Tingting Wang. et al. Endoplasmic reticulum stress-autophagy axis is involved in copper-induced ovarian ferroptosis. FREE RADICAL BIO MED. 2025 Apr;: WB ;Mouse. 40194638
- **[IF=5.9]** Shiokawa Daisuke. et al. Elevated stress response marks deeply quiescent reserve cells of gastric chief cells. COMMUN BIOL. 2023 Nov;6(1):1-10 IF ;Mouse. 37985874
- **[IF=5.778]** Yuting Wang. et al. Polybrominated diphenyl ethers quinone-induced intracellular protein oxidative damage triggers ubiquitin-proteasome and autophagy-lysosomal system activation in LO2 cells. Chemosphere. 2021 Jul;275:130034 WB ;Human. 33652285