Anti-SRF Antibody [PSH05-06]

HA722220

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC, IP
Molecular Wt:	Predicted band size: 52 kDa
Clone number:	PSH05-06

Description: Serum response factor, also known as SRF, is a transcription factor protein. Serum response factor is a member of the MADS (MCM1, Agamous, Deficiens, and SRF) box superfamily of transcription factors. This protein binds to the serum response element (SRE) in the promoter region of target genes. This protein regulates the activity of many immediate early genes, for example c-fos, and thereby participates in cell cycle regulation, apoptosis, cell growth, and cell differentiation. This gene is the downstream target of many pathways; for example, the mitogen-activated protein kinase pathway (MAPK) that acts through the ternary complex factors (TCFs). SRF is important during the development of the embryo, as it has been linked to the formation of mesoderm. In the fully developed mammal, SRF is crucial for the growth of skeletal muscle. Interaction of SRF with other proteins, such as steroid hormone receptors, may contribute to regulation of muscle growth by steroids. Interaction of SRF with other proteins such as myocardin or Elk-1 may enhance or suppress expression of genes important for growth of vascular smooth muscle. Lack of skin SRF is associated with psoriasis and other skin diseases.

Immunogen: Recombinant protein within human SRF aa 1-400 / 508.

Positive control: THP-1 cell lysate, A431 cell lysate, HEK-293 cell lysate, NIH/3T3 cell lysate, C2C12 cell lysate, C6 cell lysate, PC-12 cell lysate, A431, human brain tissue, mouse brain tissue, rat brain tissue.

Subcellular location: Nucleus.

Database links: SwissProt: P11831 Human | Q9JM73 Mouse
Entrez Gene: 501099 Rat

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:100
IHC-P	1:200-1:1,000
FC	1:1,000
IP	1-2μg/sample

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

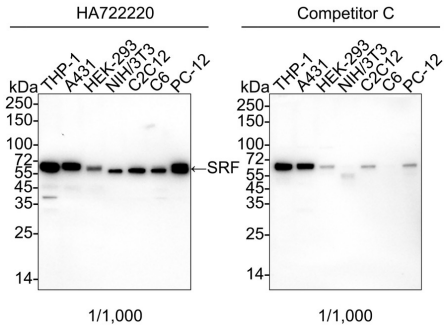

Fig1: Western blot analysis of SRF on different lysates with Rabbit anti-SRF antibody (HA722220) at 1/1,000 dilution and competitor's antibody at 1/1,000 dilution.

Lane 1: THP-1 cell lysate
Lane 2: A431 cell lysate
Lane 3: HEK-293 cell lysate
Lane 4: NIH/3T3 cell lysate
Lane 5: C2C12 cell lysate
Lane 6: C6 cell lysate
Lane 7: PC-12 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 52 kDa
Observed band size: 67 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722220) at 1/1,000 dilution and competitor's antibody at 1/1,000 dilution were used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

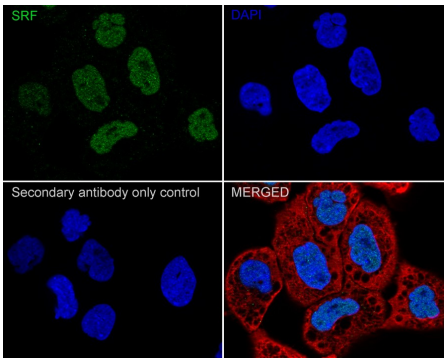

Fig2: Immunocytochemistry analysis of A431 cells labeling SRF with Rabbit anti-SRF antibody (HA722220) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-SRF antibody (HA722220) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

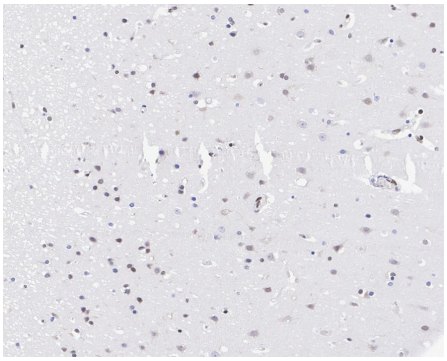

Fig3: Immunohistochemical analysis of paraffin-embedded human brain tissue with Rabbit anti-SRF antibody (HA722220) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722220) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

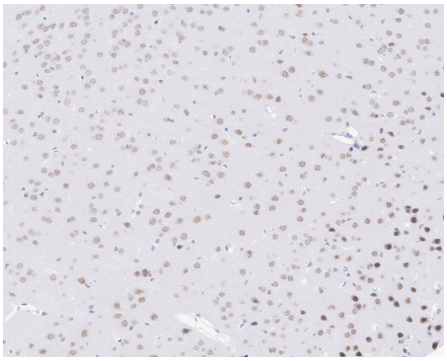

Fig4: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-SRF antibody (HA722220) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722220) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

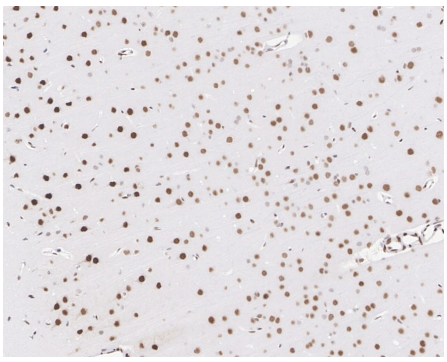

Fig5: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-SRF antibody (HA722220) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722220) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

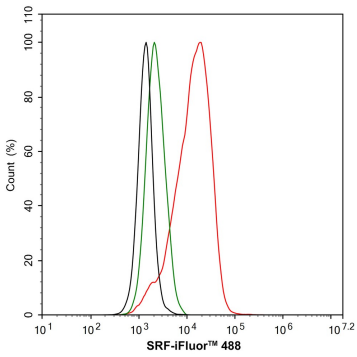

Fig6: Flow cytometric analysis of A431 cells labeling SRF.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA722220, 1μg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

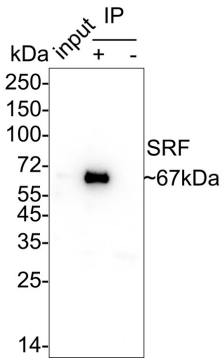

Fig7: SRF was immunoprecipitated from 0.2 mg A431 cell lysate with HA722220 at 2 μg/25 μl agarose. Western blot was performed from the immunoprecipitate using HA722220 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: A431 cell lysate (input)
Lane 2: HA722220 IP in A431 cell lysate
Lane 3: Rabbit IgG instead of HA722220 in A431 cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 24 seconds; ECL: K1801

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Onuh JO et al. Serum response factor-cofactor interactions and their implications in disease. FEBS J. 2021 May
2. Feng GY et al. Serum response factor promotes axon regeneration following spinal cord transection injury. Neural Regen Res. 2023 Sep