Anti-SAFB Antibody [JE64-94]

HA721085

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 103 kDa
Clone number:	JE64-94

Description: This gene encodes a DNA-binding protein which has high specificity for scaffold or matrix attachment region DNA elements (S/MAR DNA). This protein is thought to be involved in attaching the base of chromatin loops to the nuclear matrix but there is conflicting evidence as to whether this protein is a component of chromatin or a nuclear matrix protein. Scaffold attachment factors are a specific subset of nuclear matrix proteins (NMP) that specifically bind to S/MAR. The encoded protein is thought to serve as a molecular base to assemble a 'transcriptosome complex' in the vicinity of actively transcribed genes. It is involved in the regulation of heat shock protein 27 transcription, can act as an estrogen receptor co-repressor and is a candidate for breast tumorigenesis. This gene is arranged head-to-head with a similar gene whose product has the same functions. Multiple transcript variants encoding different isoforms have been found for this gene.

Immunogen: Synthetic peptide within human SAFB aa 866-915/915.

Positive control: A431 cell lysates, 293 cell lysate, Hela cell lysate, rat brain tissue, human colon carcinoma tissue, mouse pancreas tissue, NCI-H441.

Subcellular location: Nucleus.

Database links: SwissProt: Q15424 Human | Q80YR5 Mouse | O88453 Rat

Recommended Dilutions:

WB	1:500-1:5,000
IF-Cell	1:50
IHC-P	1:200-1:400

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

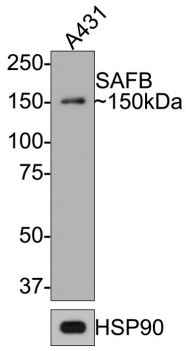

Fig1: Western blot analysis of SAFB on A431 cell lysates with Rabbit anti-SAFB antibody (HA721085) at 1/500 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 103 kDa
Observed band size: 150 kDa

Exposure time: 2 minutes;

8% 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 (HA721085) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

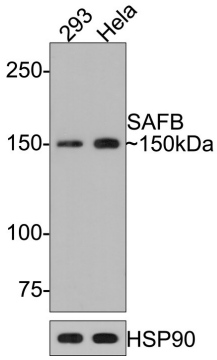

Fig2: Western blot analysis of SAFB on different lysates with Rabbit anti-SAFB antibody (HA721085) at 1/5,000 dilution.

Lane 1: 293 cell lysate
Lane 2: Hela cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 103 kDa
Observed band size: 150 kDa

Exposure time: 2 minutes;

8% 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 (HA721085) at 1/5,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

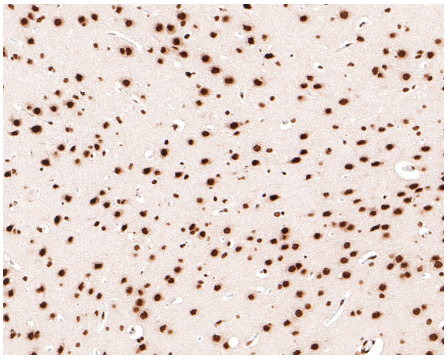

Fig3: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-SAFB antibody (HA721085) at 1/400 dilution.

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 (HA721085) at 1/400 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.

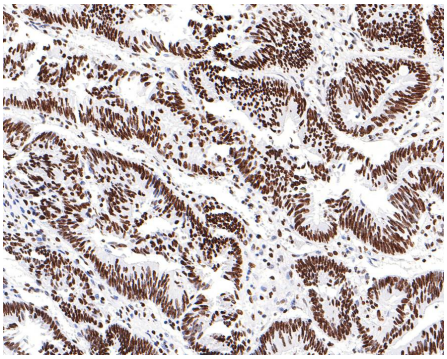

Fig4: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue with Rabbit anti-SAFB antibody (HA721085) at 1/200 dilution.

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 (HA721085) 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.

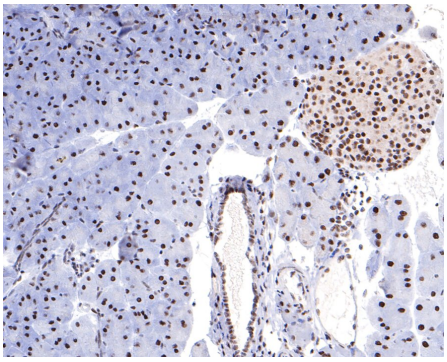

Fig5: Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue with Rabbit anti-SAFB antibody (HA721085) at 1/400 dilution.

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 (HA721085) at 1/400 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.

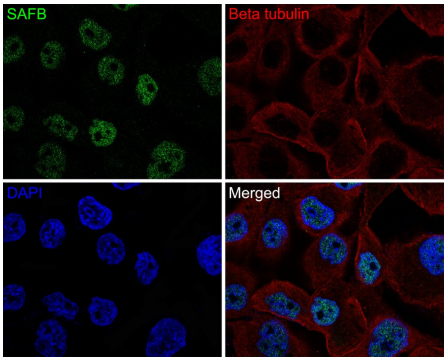

Fig6: Immunocytochemistry analysis of NCI-H441 cells labeling SAFB with Rabbit anti-SAFB antibody (HA721085) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-SAFB antibody (HA721085) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) was used as the secondary antibody at 1/1,000 dilution. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/200 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 647, HA1127) were used as the secondary antibody at 1/1,000 dilution.

Background References

1. Zhou M. et. al. Scaffold association factor B (SAFB) is required for expression of prenyltransferases and RAS membrane association. Proc Natl Acad Sci U S A. 2020 Dec
2. Huo X. et. al. The Nuclear Matrix Protein SAFB Cooperates with Major Satellite RNAs to Stabilize Heterochromatin Architecture Partially through Phase Separation. Mol Cell. 2020 Jan