

# SAF-B (F-20): sc-32002

## BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to pre-mRNA processing and transport, and also bind heterogeneous nuclear RNA (hnRNA), the transcripts produced by RNA polymerase II. SAF-B2, for scaffold attachment factor B2, is a nuclear matrix-associated protein that binds to MAR or SAR regions (for matrix- or scaffold-associated regions) on DNA and interacts with RNA polymerase II and serine-/arginine-rich RNA processing factors (SR proteins). SAF-B, also designated HAP for hnRNP A1 associated protein and HET for HSP27-ERE-TATA-binding protein, is a proven hnRNP protein that has a speckled distribution in the nucleus, and, in response to stress agents such as heat shock, is recruited to a few, large nuclear granules, called perichromatin granules. SAF-B also binds to the estrogen receptor (ER) and is expressed in several breast cancer cell lines at varying levels. Subsequently, SAF-B may play a role in breast cancer by mediating cellular proliferation and division.

## REFERENCES

1. Badolato, J., et al. 1995. Identification and characterization of a novel human RNA-binding protein. *Gene* 166: 323-327.
2. Oesterreich, S., et al. 1997. Novel nuclear matrix protein HET binds to and influences activity of the HSP27 promoter in human breast cancer cells. *J. Cell. Biochem.* 67: 275-286.
3. Nayler, O., et al. 1998. SAF-B protein couples transcription and pre-mRNA splicing to SAR/MAR elements. *Nucleic Acids Res.* 26: 3542-359.
4. Weighardt, F., et al. 1999. A novel hnRNP protein (HAP/SAF-B) enters a subset of hnRNP complexes and relocates in nuclear granules in response to heat shock. *J. Cell Sci.* 112: 1465-1476.
5. Chiodi, I., et al. 2000. Structure and dynamics of hnRNP-labelled nuclear bodies induced by stress treatments. *J. Cell Sci.* 113: 4043-4053.
6. Arai, Y., et al. 2000. A nuclear matrix-associated factor, SAF-B, interacts with specific isoforms of AUF1/hnRNP D. *Arch. Biochem. Biophys.* 380: 228-236.

## CHROMOSOMAL LOCATION

Genetic locus: SAFB (human) mapping to 19p13.3-p13.2; Safb (mouse) mapping to 17 D.

## SOURCE

SAF-B (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SAF-B of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32002 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

SAF-B (F-20) is recommended for detection of SAF-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SAF-B siRNA (h): sc-38311 and SAF-B siRNA (m): sc-38312.

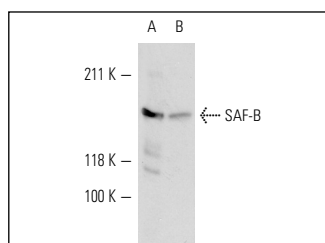
Molecular Weight of SAF-B: 150 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or MCF7 nuclear extract: sc-2149.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



SAF-B (F-20): sc-32002. Western blot analysis of SAF-B expression in HeLa (A) and MCF7 (B) nuclear extracts.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.



Try **SAF-B (F-3): sc-393403** or **SAF-B (4D6): sc-135618**, our highly recommended monoclonal alternatives to SAF-B (F-20).