SANTA CRUZ BIOTECHNOLOGY, INC.

SAF-B (G-20): sc-17263

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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-B, for scaffold attachment factor B, is a nuclear matrix-associated protein that binds to MAR or SAR regions (for matrix- or scaffold-associating 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. Arao, 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/SAFB2 (human) mapping to 19p13.3; Safb/Safb2 (mouse) mapping to 17 D.

SOURCE

SAF-B (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-17263 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 (G-20) is recommended for detection of SAF-B and, to a lesser extent, SAF-B2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

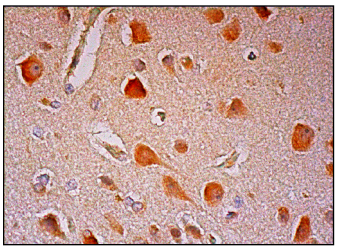
SAF-B (G-20) is also recommended for detection of SAF-B and, to a lesser extent, SAF-B2 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of SAF-B: 150 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



SAF-B (G-20): sc-17263. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing nuclear and cytoplasmic staining of neuronal cells and glial cells.

STORAGE

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