

BRF2 (h): 293 Lysate: sc-111135

BACKGROUND

Human cells contain two types of RNA polymerase III transcription factor (TFIIIB), BRF1 and BRF2. BRF1 functions in recruitment of RNA polymerase III to the promoter for multiple rounds of transcription. BRF1 precisely positions TFIIIB on the upstream promoter-less DNA by creating stable protein-protein interactions with TATA-binding protein (TBP), another component of TFIIIB. BRF2 is recruited to type 3 promoters such as the human U6 snRNA promoter. It differs from BRF1-TFIIIB in that it contains the TFIIIB-related factor BRF2 instead of BRF1 and its three components do not form a stable complex.

REFERENCES

1. Wang, Z. and Roeder, R.G. 1995. Structure and function of a human transcription factor TFIIIB subunit that is evolutionarily conserved and contains both TFIIIB- and high-mobility-group protein 2-related domains. *Proc. Natl. Acad. Sci. USA* 92: 7026-7030.
2. Kassavetis, G.A., et al. 1995. Cloning, expression, and function of TFC5, the gene encoding the B" component of the *Saccharomyces cerevisiae* RNA polymerase III transcription factor TFIIIB. *Proc. Natl. Acad. Sci. USA* 92: 9786-9790.
3. Whitehall, S.K., et al. 1995. The symmetry of the yeast U6 RNA gene's TATA box and the orientation of the TATA-binding protein in yeast TFIIIB. *Genes Dev.* 9: 2974-2985.
4. Ishiguro, A., et al. 2002. Essential roles of BDP1, a subunit of RNA polymerase III initiation factor TFIIIB, in transcription and tRNA processing. *Mol. Cell. Biol.* 22: 3264-3275.
5. Huang, Y., et al. 2003. The fission yeast TFIIIB-related factor limits RNA polymerase III to a TATA-dependent pathway of TBP recruitment. *Nucleic Acids Res.* 31: 2108-2116.
6. Hu, P., et al. 2004. CK2 phosphorylation of BDP1 executes cell cycle-specific RNA polymerase III transcription repression. *Mol. Cell* 16: 81-92.

CHROMOSOMAL LOCATION

Genetic locus: BRF2 (human) mapping to 8p11.23.

PRODUCT

BRF2 (h): 293 Lysate represents a lysate of human BRF2 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

BRF2 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive BRF2 antibodies. Recommended use: 10-20 µl per lane.

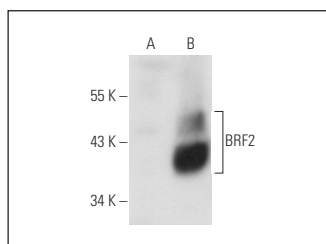
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

BRF2 (A-12): sc-271182 is recommended as a positive control antibody for Western Blot analysis of enhanced human BRF2 expression in BRF2 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



BRF2 (A-12): sc-271182. Western blot analysis of BRF2 expression in non-transfected: sc-110760 (A) and human BRF2 transfected: sc-111135 (B) 293 whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.