

NAB1 (h): 293T Lysate: sc-115360

BACKGROUND

Transcriptional control is in part regulated by interactions between DNA-bound transcription factors, such as Egr-1/NGFI-A, and coregulatory proteins such as NAB (for NGFI-A-binding proteins). The evolutionarily conserved NAB proteins, NAB1 and NAB2, are corepressors of Egr-1/NGFI-A. Both NAB1 and NAB2 contain an amino-terminal NAB-conserved domain 1 (NCB1), which is required for binding NGFI-A, and a carboxy-terminal NCD2, which is responsible for the repressor function of NAB proteins. NAB1 requires NGFI-A to gain access to DNA, indicating that NAB1 is an active repressor that works by a direct mechanism. NAB1, which is constitutively expressed, is localized exclusively in the nucleus and may play a role in controlling processes such as cell division, differentiation and apoptosis.

REFERENCES

1. Russo, M.W., et al. 1993. Transcriptional activity of the zinc finger protein NGFI-A is influenced by its interaction with a cellular factor. *Mol. Cell. Biol.* 13: 6858-6865.
2. Russo, M.W., et al. 1995. Identification of NAB1, a repressor of NGFI-A- and Krox20-mediated transcription. *Proc. Natl. Acad. Sci. USA* 92: 6873-6877.
3. Svaren, J., et al. 1996. NAB2, a corepressor of NGFI-A (Egr-1) and Krox20, is induced by proliferative and differentiative stimuli. *Mol. Cell. Biol.* 16: 3545-3553.
4. Swirnow, A.H., et al. 1998. NAB1, a corepressor of NGFI-A (Egr-1), contains an active transcriptional repression domain. *Mol. Cell. Biol.* 18: 512-524.
5. Severson, B.R., et al. 2000. A novel activation function for NAB proteins in Egr-dependent transcription for the luteinizing hormone β gene. *J. Biol. Chem.* 275: 9749-9757.
6. Braddock, M., et al. 2000. Therapeutic applications of the transcriptional corepressor proteins NAB1 and NAB2 in regenerative medicine. *IDrugs* 3: 783-787.
7. Musgnug, J.H., et al. 2005. NAB1 is an RNA binding protein involved in the light-regulated differential expression of the light-harvesting antenna of *Chlamydomonas reinhardtii*. *Plant Cell* 17: 3409-3421.
8. Buitrago, M., et al. 2005. The transcriptional repressor NAB1 is a specific regulator of pathological cardiac hypertrophy. *Nat. Med.* 11: 837-844.
9. Förster, B., et al. 2006. Comparative proteomics of high light stress in the model alga *Chlamydomonas reinhardtii*. *Proteomics* 6: 4309-4320.

CHROMOSOMAL LOCATION

Genetic locus: NAB1 (human) mapping to 2q32.2.

PRODUCT

NAB1 (h): 293T Lysate represents a lysate of human NAB1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

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.

APPLICATIONS

NAB1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive NAB1 antibodies. Recommended use: 10-20 μ l per lane.

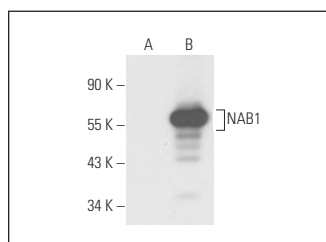
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NAB1 (B-5): sc-137116 is recommended as a positive control antibody for Western Blot analysis of enhanced human NAB1 expression in NAB1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

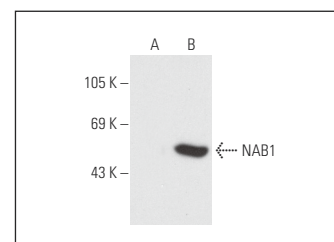
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



NAB1 (B-5): sc-137116. Western blot analysis of NAB1 expression in non-transfected: sc-117752 (A) and human NAB1 transfected: sc-115360 (B) 293T whole cell lysates.



NAB1 (A-8): sc-137084. Western blot analysis of NAB1 expression in non-transfected: sc-117752 (A) and mouse NAB1 transfected: sc-121928 (B) 293T whole cell lysates.

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.