

# NAB2 (1C4): sc-23867

## BACKGROUND

Transcriptional control is in part regulated by interactions between DNA-bound transcription factors, such as Egr-1/NGFI-A, and co-regulatory proteins, such as NAB (for NGFI-A-binding proteins). The evolutionarily conserved NAB proteins, NAB1 and NAB2 are co-repressors of EGF-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 domain, which is responsible for the repressor function of NAB proteins. NAB2 is principally localized in the nucleus and may play a role in the downregulation of NGFI-A activity as well as in controlling fundamental processes such as cell division, differentiation and apoptosis. NAB2 localizes to chromosome 12q13.3, a region that is rearranged in several solid tumors, lipomas and liposarcomas.

## CHROMOSOMAL LOCATION

Genetic locus: NAB2 (human) mapping to 12q13.3; Nab2 (mouse) mapping to 10 D3.

## SOURCE

NAB2 (1C4) is a mouse monoclonal antibody raised against recombinant human NAB2 protein.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NAB2 (1C4) is available conjugated to agarose (sc-23867 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23867 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23867 PE), fluorescein (sc-23867 FITC), Alexa Fluor® 488 (sc-23867 AF488), Alexa Fluor® 546 (sc-23867 AF546), Alexa Fluor® 594 (sc-23867 AF594) or Alexa Fluor® 647 (sc-23867 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23867 AF680) or Alexa Fluor® 790 (sc-23867 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

NAB2 (1C4) is recommended for detection of NAB2 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for NAB2 siRNA (h): sc-36014, NAB2 siRNA (m): sc-36015, NAB2 shRNA Plasmid (h): sc-36014-SH, NAB2 shRNA Plasmid (m): sc-36015-SH, NAB2 shRNA (h) Lentiviral Particles: sc-36014-V and NAB2 shRNA (m) Lentiviral Particles: sc-36015-V.

Molecular Weight (predicted) of NAB2: 57 kDa.

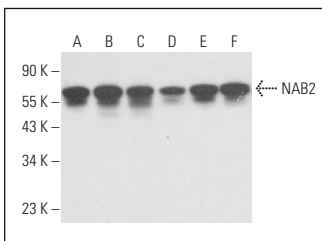
Molecular Weight (observed) of NAB2: 64 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, SK-BR-3 cell lysate: sc-2218 or MDA-MB-231 cell lysate: sc-2232.

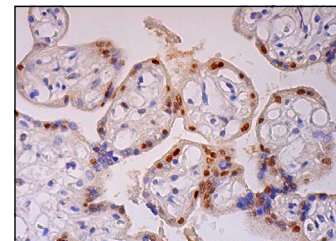
## STORAGE

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

## DATA



NAB2 (1C4): sc-23867. Western blot analysis of NAB2 expression in MCF7 (A), SK-BR-3 (B), MDA-MB-231 (C), c4 (D), BYDP (E) and WR19L (F) whole cell lysates.



NAB2 (1C4): sc-23867. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear staining of trophoblastic cells.

## SELECT PRODUCT CITATIONS

- Bhattacharyya, S., et al. 2009. The transcriptional cofactor NAB2 is induced by TGFβ and suppresses fibroblast activation: physiological roles and impaired expression in scleroderma. *PLoS ONE* 4: e7620.
- Balzarolo, M., et al. 2012. The transcriptional regulator NAB2 reveals a two-step induction of TRAIL in activated plasmacytoid DCs. *Eur. J. Immunol.* 42: 3019-3027.
- Schweizer, L., et al. 2013. Meningeal hemangiopericytoma and solitary fibrous tumors carry the NAB2-Stat6 fusion and can be diagnosed by nuclear expression of Stat6 protein. *Acta Neuropathol.* 125: 651-658.
- Kurisasi-Arakawa, A., et al. 2014. A case of dedifferentiated solitary fibrous tumor in the pelvis with TP53 mutation. *Virchows Arch.* 465: 615-621.
- Ouladan, S., et al. 2015. Differential diagnosis of solitary fibrous tumors: a study of 454 soft tissue tumors indicating the diagnostic value of nuclear Stat6 relocation and ALDH1 expression combined with *in situ* proximity ligation assay. *Int. J. Oncol.* 46: 2595-2605.
- Nilsson, H.J., et al. 2017. The transcriptional coregulator NAB2 is a target gene for the Wilms' tumor gene 1 protein (WT1) in leukemic cells. *Oncotarget* 8: 87136-87150.
- Barbieri, E., et al. 2018. Targeted enhancer activation by a subunit of the integrator complex. *Mol. Cell* 71: 103-116.e7.
- Bose, D., et al. 2019. Differential interleukin-2 transcription kinetics render mouse but not human T cells vulnerable to splicing inhibition early after activation. *Mol. Cell. Biol.* 39: e00035-19.
- Nguyen, T.H., et al. 2021. Serine hydroxymethyltransferase 2 expression promotes tumorigenesis in rhabdomyosarcoma with 12q13-14 amplification. *J. Clin. Invest.* 131: e138022.

## RESEARCH USE

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