

# NaBC1 (B-12): sc-393808

## BACKGROUND

NaBC1 (novel amplified in breast cancer 1) is a protein found amplified in most breast carcinoma forms. It is expressed primarily as a cytoplasmic, detergent-stable homodimer that has a tendency to interact with DYNLL1 (PIN) and DYNLL2. Breast tumor lines that exhibit 20q13.2 gene amplification express much higher levels of the protein as compared to the levels found in other breast cancer lines that do not overexpress the NaBC1 mRNA. However, this upregulation does not affect growth rate or anchoring abilities of a cell, indicating the oncogenic properties of NaBC1 differ from that of other oncogenes.

## REFERENCES

- Collins, C., et al. 1998. Positional cloning of ZNF217 and NaBC1: genes amplified at 20q13.2 and overexpressed in breast carcinoma. *Proc. Natl. Acad. Sci. USA* 95: 8703-8708.
- Correa, R.G., et al. 2000. NaBC1 (BCAS1): alternative splicing and down-regulation in colorectal tumors. *Genomics* 65: 299-302.
- Ishimoto, T., et al. 2002. Cloning and characterization of a novel synaptosome-enriched mRNA that encodes 31 kDa protein. *Biochim. Biophys. Acta* 1579: 189-195.
- Zhao, C., et al. 2003. Elevated expression levels of NCoA-3, TOP1, and TFAP2C in breast tumors as predictors of poor prognosis. *Cancer* 98: 18-23.
- Beardsley, D.J., et al. 2003. Characterization of the novel amplified in breast cancer 1 (NaBC1) gene product. *Exp. Cell Res.* 290: 402-413.
- Aust, D.E., et al. 2004. Prognostic relevance of 20q13 gains in sporadic colorectal cancers: a FISH analysis. *Scand. J. Gastroenterol.* 39: 766-772.

## CHROMOSOMAL LOCATION

Genetic locus: BCAS1 (human) mapping to 20q13.2.

## SOURCE

NaBC1 (B-12) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of NaBC1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NaBC1 (B-12) is available conjugated to agarose (sc-393808 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393808 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393808 PE), fluorescein (sc-393808 FITC), Alexa Fluor® 488 (sc-393808 AF488), Alexa Fluor® 546 (sc-393808 AF546), Alexa Fluor® 594 (sc-393808 AF594) or Alexa Fluor® 647 (sc-393808 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393808 AF680) or Alexa Fluor® 790 (sc-393808 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

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

## APPLICATIONS

NaBC1 (B-12) is recommended for detection of NaBC1 of human origin by Western Blotting (starting dilution 1:100, 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 NaBC1 siRNA (h): sc-62657, NaBC1 shRNA Plasmid (h): sc-62657-SH and NaBC1 shRNA (h) Lentiviral Particles: sc-62657-V.

Molecular Weight of NaBC1 monomer: 60 kDa.

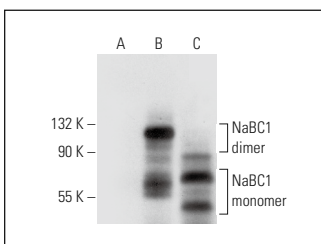
Molecular Weight of NaBC1 dimer: 120 kDa.

Positive Controls: NaBC1 (h): 293T Lysate: sc-372948 or SK-BR-3 cell lysate: sc-2218.

## 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



NaBC1 (B-12): sc-393808. Western blot analysis of NaBC1 expression in non-transfected 293T: sc-117752 (A), human NaBC1 transfected 293T: sc-372948 (B) and SK-BR-3 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Theotokis, P., et al. 2022. Lumbar spine intrathecal transplantation of neural precursor cells promotes oligodendrocyte proliferation in hot spots of chronic demyelination. *Brain Pathol.* 32: e13040.

## RESEARCH USE

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

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