

# BRAF35 (m): 293T Lysate: sc-118838

## BACKGROUND

The breast cancer susceptibility gene (BRCA1) localizes to chromosome 17q. Mutations within this gene account for approximately 45% of families with high incidence of breast cancer and at least 80% of families with increased incidence of both early-onset breast cancer and ovarian cancer. A second breast cancer susceptibility gene, BRCA2, located on chromosome 13q12-13, also confers a high incidence of breast cancer, but unlike BRCA1, BRCA2 does not confer a substantially elevated risk of ovarian cancer. The BRCA2-associated factor 35 (BRAF35) protein forms a complex with BRCA2, which associates with condensed chromatin during Histone H3 phosphorylation. BRAF35 expression levels are highest in proliferating tissues and parallel BRCA2 expression patterns. The structure of BRAF35 includes a kinesin-like coiled coil domain and a nonspecific DNA binding HMG domain. The chromatin localization of BRAF35 and antibody microinjection studies indicate a role for the BRAF35/BRCA2 complex in cell cycle regulation.

## REFERENCES

- Hall, J.M., et al. 1990. Linkage of early-onset familial breast cancer to chromosome 17q21. *Science* 250: 1684-1689.
- Narod, S.A., et al. 1991. Familial breast-ovarian cancer locus on chromosome 17q12-q23. *Lancet* 338: 82-83.
- Wooster, R., et al. 1994. Localization of a breast cancer susceptibility gene, BRCA2, to chromosome 13q12-13. *Science* 265: 2088-2090.
- Futreal, P.A., et al. 1994. BRCA1 mutations in primary breast and ovarian carcinomas. *Science* 266: 120-122.
- Marmorstein, L.Y., et al. 2001. A human BRCA2 complex containing a structural DNA binding component influences cell cycle progression. *Cell* 104: 247-257.
- Hakimi, M.A., et al. 2002. A core-BRAF35 complex containing histone deacetylase mediates repression of neuronal-specific genes. *Proc. Natl. Acad. Sci. USA* 99: 7420-7425.

## CHROMOSOMAL LOCATION

Genetic locus: Hmg20b (mouse) mapping to 10 C1.

## PRODUCT

BRAF35 (m): 293T Lysate represents a lysate of mouse BRAF35 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

BRAF35 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive BRAF35 antibodies. Recommended use: 10-20 µl per lane.

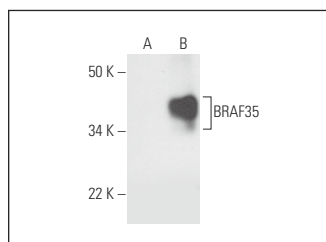
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

BRAF35 (F-4): sc-390813 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse BRAF35 expression in BRAF35 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-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



BRAF35 (F-4): sc-390813. Western blot analysis of BRAF35 expression in non-transfected: sc-117752 (A) and mouse BRAF35 transfected: sc-118838 (B) 293T 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](http://www.scbt.com) for detailed protocols and support products.