

## BRMS1 (L-18): sc-49391

### BACKGROUND

Breast cancer metastasis-suppressor 1 (BRMS1) is 246 amino acid protein that acts as a mediator of metastasis suppression in several types of cancer including ovarian, lung, bladder and murine mammary. BRMS1 mRNA is expressed in various tissues, including ovary, prostate, testis and colon, but the protein is primarily detected in term placenta. BRMS1 suppresses metastasis without inhibiting tumorigenicity by modifying several metastasis-associated phenotypes. BRMS1 may participate in transcriptional regulation by binding to the mSin3/histone deacetylase complex. The expression of BRMS1 in certain cells increases connexin Cx43 expression and reduces connexin Cx32 expression. This produces a gap junction that increases intercellular communication, similar to those found in normal breast tissue. BRMS1 is stabilized by HSP 90 and may inhibit NF $\kappa$ B activity.

### REFERENCES

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3. Kelly, L.M., et al. 2005. Expression of the breast cancer metastasis suppressor gene, BRMS1, in human breast carcinoma: lack of correlation with metastasis to axillary lymph nodes. Tumour Biol. 26: 213-216.
4. DeWald, D.B., et al. 2005. Metastasis suppression by breast cancer metastasis suppressor 1 involves reduction of phosphoinositide signaling in MDA-MB-435 breast carcinoma cells. Cancer Res. 65: 713-717.
5. Cicek, M., et al. 2005. Breast cancer metastasis suppressor 1 inhibits gene expression by targeting NK $\kappa$ B activity. Cancer Res. 65: 3586-3595.
6. Stark, A.M., et al. 2005. Reduced metastasis-suppressor gene mRNA-expression in breast cancer brain metastases. J. Cancer Res. Clin. Oncol. 131: 191-198.
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8. Hurst, D.R., et al. 2006. Breast cancer metastasis suppressor 1 (BRMS1) is stabilized by the HSP 90 chaperone. Biochem. Biophys. Res. Commun. 348: 1429-1435.
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### CHROMOSOMAL LOCATION

Genetic locus: BRMS1 (human) mapping to 11q13.2; Brms1 (mouse) mapping to 19 A.

### SOURCE

BRMS1 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BRMS1 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49391 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

BRMS1 (L-18) is recommended for detection of BRMS1 (Breast cancer metastasis-suppressor 1) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

BRMS1 (L-18) is also recommended for detection of BRMS1 (Breast cancer metastasis-suppressor 1) in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BRMS1 siRNA (h): sc-60290, BRMS1 siRNA (m): sc-60291, BRMS1 shRNA Plasmid (h): sc-60290-SH, BRMS1 shRNA Plasmid (m): sc-60291-SH, BRMS1 shRNA (h) Lentiviral Particles: sc-60290-V and BRMS1 shRNA (m) Lentiviral Particles: sc-60291-V.

Molecular Weight of BRMS1: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or human liver extract: sc-363766.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. 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) or our catalog for detailed protocols and support products.