

EMSY (P-16): sc-35000

BACKGROUND

EMSY interacts with BRCA2 and plays a role in chromatin remodeling. This interaction has been confirmed in HeLa cells. Overexpression of EMSY strongly correlates with amplification in sporadic breast cancer and higher grade ovarian cancer. The EMSY gene is amplified in 18% of breast cancer cell lines. EMSY amplification is highly correlated with DNA amplification in both cell lines and primary tumors. This amplification is a general sign of poor prognosis and shortened disease-free survival time. EMSY from a wide variety of species has a conserved 80 amino acid sequence at the N-terminus. In irradiated MEFs (mouse embryonic fibroblasts), EMSY was found to migrate to damaged DNA.

REFERENCES

- Haber, D.A., et al. 2003. The BRCA2-EMSY connection: implications for breast and ovarian tumorigenesis. *Cell* 115: 507-508.
- Hughes-Davies, L., et al. 2003. EMSY links the BRCA2 pathway to sporadic breast and ovarian cancer. *Cell* 115: 523-535.
- Rodriguez, C., et al. 2004. Amplification of the BRCA2 pathway gene EMSY in sporadic breast cancer is related to negative outcome. *Clin. Cancer Res.* 10: 5785-5791.
- Yao, J., et al. 2004. EMSY links breast cancer gene 2 to the "Royal Family." *Breast Cancer Res.* 6: 201-203.
- Livingston, D.M., et al. 2004. EMSY, a BRCA2 partner in crime. *Nat. Med.* 10: 127-128.
- Benusiglio, P.R., et al. 2005. Common variation in EMSY and risk of breast and ovarian cancer: a case-control study using HapMap tagging SNPs. *BMC Cancer* 5: 81.
- Raouf, A., et al. 2005. Genomic instability of human mammary epithelial cells overexpressing a truncated form of EMSY. *J. Natl. Cancer Inst.* 97: 1302-1306.
- Brown, L.A., et al. 2006. Amplification of EMSY, a novel oncogene on 11q13, in high grade ovarian surface epithelial carcinomas. *Gynecol. Oncol.* 100: 264-270.
- Huang, Y., et al. 2006. Crystal structure of the HP1-EMSY complex reveals an unusual mode of HP1 binding. *Structure* 14: 703-712.

CHROMOSOMAL LOCATION

Genetic locus: C11orf30 (human) mapping to 11q13.5; 2210018M11Rik (mouse) mapping to 7 E2.

SOURCE

EMSY (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EMSY of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-35000 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EMSY (P-16) is recommended for detection of EMSY isoforms 1 and 2 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).

EMSY (P-16) is also recommended for detection of EMSY isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EMSY siRNA (h): sc-45565, EMSY siRNA (m): sc-45566, EMSY shRNA Plasmid (h): sc-45565-SH, EMSY shRNA Plasmid (m): sc-45566-SH, EMSY shRNA (h) Lentiviral Particles: sc-45565-V and EMSY shRNA (m) Lentiviral Particles: sc-45566-V.

Molecular Weight of EMSY: 141 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.