

EMSY (E-9): sc-515469

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.

CHROMOSOMAL LOCATION

Genetic locus: EMSY (human) mapping to 11q13.5; Emsy (mouse) mapping to 7 E2.

SOURCE

EMSY (E-9) is a mouse monoclonal antibody raised against amino acids 1-83 mapping at the N-terminus of EMSY of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EMSY (E-9) is available conjugated to agarose (sc-515469 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515469 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515469 PE), fluorescein (sc-515469 FITC), Alexa Fluor[®] 488 (sc-515469 AF488), Alexa Fluor[®] 546 (sc-515469 AF546), Alexa Fluor[®] 594 (sc-515469 AF594) or Alexa Fluor[®] 647 (sc-515469 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515469 AF680) or Alexa Fluor[®] 790 (sc-515469 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

EMSY (E-9) is recommended for detection of EMSY of mouse, rat and 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 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.

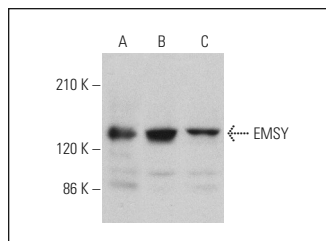
Molecular Weight of EMSY: 141 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Ramos cell lysate: sc-2216 or HeLa whole cell lysate: sc-2200.

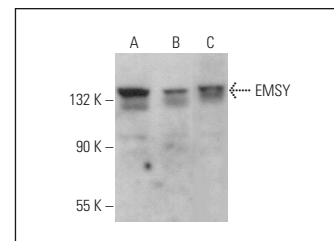
RECOMMENDED SUPPORT REAGENTS

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



EMSY (E-9): sc-515469. Western blot analysis of EMSY expression in HeLa nuclear extract (A) and Ramos (B) and HeLa (C) whole cell lysates.



EMSY (E-9): sc-515469. Western blot analysis of EMSY expression in Raji (A), NAMALWA (B) and MCF7 (C) whole cell lysates.

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 for detailed protocols and support products.