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Produktinformation

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

EMSY shRNA (h) Lentiviral Particles: sc-45565-V

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

1. Haber, D.A., et al. 2003. The BRCA2-EMSY connection: implications for breast and ovarian tumorigenesis. Cell 115: 507-508.
2. Hughes-Davies, L., et al. 2003. EMSY links the BRCA2 pathway to sporadic breast and ovarian cancer. Cell 115: 523-535.
3. 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.
4. Yao, J., et al. 2004. EMSY links breast cancer gene 2 to the 'Royal Family.' Breast Cancer Res. 6: 201-203.
5. Livingston, D.M., et al. 2004. EMSY, a BRCA2 partner in crime. Nat. Med. 10: 127-128.
6. 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.
7. 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.
8. 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.

PRODUCT

EMSY shRNA (h) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 3 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200 µl frozen stock containing 1.0 x 10^6 infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see EMSY siRNA (h): sc-45565 and EMSY shRNA Plasmid (h): sc-45565-SH as alternate gene silencing products.

STORAGE

Store lentiviral particles at -80° C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at 4° C for up to one week. Avoid repeated freeze thaw cycles.

APPLICATIONS

EMSY shRNA (h) Lentiviral Particles is recommended for the inhibition of EMSY expression in human cells.

SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200 µl frozen viral stock containing 1.0 x 10^6 infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

GENE EXPRESSION MONITORING

EMSY (A-15): sc-34995 is recommended as a control antibody for monitoring of EMSY gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor EMSY gene expression knockdown using RT-PCR Primer: EMSY (h)-PR: sc-45565-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

BIOSAFETY

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

RESEARCH USE

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

PROTOCOLS

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