



EBP2 siRNA (m): sc-45623

BACKGROUND

The replication and stable maintenance of latent Epstein-Barr virus DNA episomes in human cells requires only one viral protein, Epstein-Barr nuclear antigen 1 (EBNA1). EBNA1 binding protein 2, also designated p40/EBP2, is a nuclear protein required for the processing of the 27S pre-rRNA. EBP2 has high conservation across species and is ubiquitously expressed in human tissues, especially myelogenous leukemia K-562. EBP2 specifically interacts with EBNA1, supporting the long-term maintenance of EBV plasmids in human cells. The EBNA1-EBP2 complex is important for the stable segregation of EBV episomes during cell division.

REFERENCES

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3. Narum, D.L., et al. 2002. A novel Plasmodium falciparum erythrocyte binding protein-2 (EBP2/BAEBL) involved in erythrocyte receptor binding. *Mol. Biochem. Parasitol.* 119: 159-168.
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5. Sears, J. 2004. The amino terminus of Epstein-Barr Virus (EBV) nuclear antigen 1 contains AT hooks that facilitate the replication and partitioning of latent EBV genomes by tethering them to cellular chromosomes. *J. Virol.* 78: 11487-11505.
6. Habel, M.E., et al. 2004. Maintenance of Epstein-Barr virus-derived episomal vectors in the murine Sp2/0 myeloma cell line is dependent upon exogenous expression of human EBP2. *Biochem. Cell Biol.* 82: 375-380.
7. Fu, Y., et al. 2005. Adiponectin promotes adipocyte differentiation, Insulin sensitivity, and lipid accumulation. *J. Lipid Res.* 46:1369-1379.
8. Kapoor, P., et al. 2005. EBP2 plays a key role in Epstein-Barr virus mitotic segregation and is regulated by aurora family kinases. *Mol. Cell. Biol.* 25: 4934-4945.
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CHROMOSOMAL LOCATION

Genetic locus: Ebna1bp2 (mouse) mapping to 4 D2.1.

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.

PRODUCT

EBP2 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see EBP2 shRNA Plasmid (m): sc-45623-SH and EBP2 shRNA (m) Lentiviral Particles: sc-45623-V as alternate gene silencing products.

For independent verification of EBP2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-45623A, sc-45623B and sc-45623C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

EBP2 siRNA (m) is recommended for the inhibition of EBP2 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor EBP2 gene expression knockdown using RT-PCR Primer: EBP2 (m)-PR: sc-45623-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.