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H2-Eb1 siRNA (m): sc-145851

BACKGROUND

Major histocompatibility complex (MHC) molecules, which include human leukocyte antigens (HLAs), form an integral part of the immune response system. They are cell-surface receptors that bind foreign peptides and present them to cytotoxic T lymphocytes (CTLs). MHC class I molecules consist of two polypeptide chains, an α or heavy chain and a non-covalently associated protein, β -2-Microglobulin. MHC class II molecules consist of a non-covalent complex of an α and β chain. The differential structural properties of MHC class I and class II molecules account for their respective roles in activating different populations of T lymphocytes. H2-Eb1 (histocompatibility 2, class II antigen E β), also known as Ia4 or H2Eb, is a 264 amino acid murine protein that is a homolog of human HLA-DR β 1, and contains one Ig-like C1-type (immunoglobulin-like) domain. H2-Eb1 is encoded by a gene that maps to mouse chromosome 17 B1.

REFERENCES

- Walter, W., et al. 2000. MHC class II antigen presentation pathway in murine tumours: tumour evasion from immunosurveillance? *Br. J. Cancer* 83: 1192-1201.
- Mitchison, N.A. and Roes, J. 2002. Patterned variation in murine MHC promoters. *Proc. Natl. Acad. Sci. USA* 99: 10561-10566.
- Bird, A.D., et al. 2007. Identification of glucocorticoid-regulated genes that control cell proliferation during murine respiratory development. *J. Physiol.* 585: 187-201.
- Church, D.M., et al. 2009. Lineage-specific biology revealed by a finished genome assembly of the mouse. *PLoS Biol.* 7: e1000112.
- Khandelwal, S. and Roche, P.A. 2010. Distinct MHC class II molecules are associated on the dendritic cell surface in cholesterol-dependent membrane microdomains. *J. Biol. Chem.* 285: 35303-35310.
- Münz, C. 2012. Antigen processing for MHC class II presentation via autophagy. *Front. Immunol.* 3: 9.
- Ryan, S.O. and Cobb, B.A. 2012. Roles for major histocompatibility complex glycosylation in immune function. *Semin. Immunopathol.* 34: 425-441.

CHROMOSOMAL LOCATION

Genetic locus: H2-Eb1 (mouse) mapping to 17 B1.

PRODUCT

H2-Eb1 siRNA (m) is a pool of 2 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 H2-Eb1 shRNA Plasmid (m): sc-145851-SH and H2-Eb1 shRNA (m) Lentiviral Particles: sc-145851-V as alternate gene silencing products.

For independent verification of H2-Eb1 (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-145851A and sc-145851B.

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

H2-Eb1 siRNA (m) is recommended for the inhibition of H2-Eb1 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.

GENE EXPRESSION MONITORING

HLA-DP (G-9): sc-390694 is recommended as a control antibody for monitoring of H2-Eb1 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 reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor H2-Eb1 gene expression knockdown using RT-PCR Primer: H2-Eb1 (m)-PR: sc-145851-PR (20 μ l, 599 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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.