



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## TSA-1 siRNA (m): sc-154709

### BACKGROUND

The human thymic shared antigen-1 (Ly-6E, RIGE, RIG-E, SCA-2, TSA-1) gene maps to chromosome 8q24.3 and encodes a 131 amino acid protein that belongs to the Ly-6 family of glycosylphosphatidylinositol (GPI)-linked proteins. Ly-6 family members share amino acid homology throughout a distinctive cysteine rich protein domain that incorporates O-linked carbohydrates. Liver, kidney, ovary, immature thymocytes, stromal cells and peripheral blood leukocytes contain high levels of TSA-1, while much lower levels are present in bone marrow stem cells. Lymphocytes expressing Ly-6 family proteins are responsive to IFNs, particularly IFN- $\alpha$ . The Ly-6 family influences normal seeding and colonization of the thymus by bone marrow stem cells, and the maturation of these cells into mature T lymphocytes.

### REFERENCES

1. Classon, B.J. and Coverdale, L. 1994. Mouse stem cell antigen Sca-2 is a member of the Ly-6 family of cell surface proteins. *Proc. Natl. Acad. Sci. USA* 91: 5296-5300.
2. Brakenhoff, R.H., van Dijk, M., Rood-Knippels, E.M. and Snow, G.B. 1997. A gain of novel tissue specificity in the human Ly-6 gene E48. *J. Immunol.* 159: 4879-4886.
3. Classon, B.J. and Boyd, R.L. 1998. Thymic-shared antigen-1 (TSA-1). A lymphostromal cell membrane Ly-6 superfamily molecule with a putative role in cellular adhesion. *Dev. Immunol.* 6: 149-156.
4. Shan, X., Bourdeau, A., Rhoton, A., Wells, D.E., Cohen, E.H., Landgraf, B.E. and Palfree, R.G. 1998. Characterization and mapping to human chromosome 8q24.3 of Ly-6-related gene 9804 encoding an apparent homologue of mouse TSA-1. *J. Immunol.* 160: 197-208.
5. Ding, L. and Shevach, E.M. 2001. Inhibition of the function of the Fc $\gamma$ RIIB by a monoclonal antibody to thymic shared antigen-1, a Ly-6 family antigen. *Immunology* 104: 28-36.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601384. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. LocusLink Report (LocusID: 4061). <http://www.ncbi.nlm.nih.gov/LocusLink/>

### CHROMOSOMAL LOCATION

Genetic locus: Ly6e (mouse) mapping to 15 D3.

### PRODUCT

TSA-1 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TSA-1 shRNA Plasmid (m): sc-154709-SH and TSA-1 shRNA (m) Lentiviral Particles: sc-154709-V as alternate gene silencing products.

For independent verification of TSA-1 (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-154709A, sc-154709B and sc-154709C.

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

### APPLICATIONS

TSA-1 siRNA (m) is recommended for the inhibition of TSA-1 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  $\mu$ M in 66  $\mu$ 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 TSA-1 gene expression knockdown using RT-PCR Primer: TSA-1 (m)-PR: sc-154709-PR (20  $\mu$ l). 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](http://www.scbt.com) for detailed protocols and support products.