# GTSCR1 siRNA (h): sc-75215



The Power to Questio

#### **BACKGROUND**

GTSCR1 (Gilles de la Tourette syndrome chromosome region, candidate 1) is a 136 amino acid single-pass membrane protein. Gilles de la Tourette syndrome (GTS) is a potentially debilitating neuropsychiatric disorder defined by the presence of both vocal and motor tics. The GTSCR1 gene maps to human chromosome 18q22.1. Encoding over 300 genes, chromosome 18 contains about 76 million bases. Trisomy 18, or Edwards syndrome, is the second most common trisomy after Downs syndrome. Symptoms of Edwards syndrome include low birth weight, a variety of physical development defects, heart deformations and breathing difficulty. Translocation between chromosome 18 and 14 is the most common translocation in cancers, and occurs in follicular lymphomas. Niemann-Pick disease, hereditary hemorrhagic telangiectasia and erythropoietic protoporphyria are associated with chromosome 18. The TGF $\beta$  modulators, Smad2, Smad4 and Smad7 are encoded by chromosome 18.

# **REFERENCES**

- Carstea, E.D., et al. 1993. Linkage of Niemann-Pick disease type C to human chromosome 18. Proc. Natl. Acad. Sci. USA 90: 2002-2004.
- State, M.W., et al. 2003. Epigenetic abnormalities associated with a chromosome 18(q21-q22) inversion and a Gilles de la Tourette syndrome phenotype. Proc. Natl. Acad. Sci. USA 100: 4684-4689.
- Petek, E., et al. 2003. Characterisation of a 19-year-old "long-term survivor" with Edwards syndrome. Genet. Couns. 14: 239-244.
- Grosso, S., et al. 2005. Chromosome 18 aberrations and epilepsy: a review.
  Am. J. Med. Genet. A 134A: 88-94.
- Aurizi, C., et al. 2007. Heterogeneity of mutations in the ferrochelatase gene in Italian patients with erythropoietic protoporphyria. Mol. Genet. Metab. 90: 402-407.
- Broderick, P., et al. 2007. A genome-wide association study shows that common alleles of SMAD7 influence colorectal cancer risk. Nat. Genet. 39: 1315-1317.
- 7. Kamal, A.H. and Prakash, U.B. 2007. Hereditary hemorrhagic telangiectasia. Mayo Clin. Proc. 82: 1364.
- Shovlin, C.L., et al. 2007. Elevated factor VIII in hereditary haemorrhagic telangiectasia (HHT): association with venous thromboembolism. Thromb. Haemost. 98: 1031-1039.

# CHROMOSOMAL LOCATION

Genetic locus: GTSCR1 (human) mapping to 18q22.1.

## **PRODUCT**

GTSCR1 siRNA (h) is a target-specific 19-25 nt siRNA 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 GTSCR1 shRNA Plasmid (h): sc-75215-SH and GTSCR1 shRNA (h) Lentiviral Particles: sc-75215-V as alternate gene silencing products.

#### 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**

GTSCR1 siRNA (h) is recommended for the inhibition of GTSCR1 expression in human 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 µM in 66 µl. 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.

## **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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com