SANTA CRUZ BIOTECHNOLOGY, INC.

# Calgizzarin siRNA (m): sc-60315

## BACKGROUND

Calgizzarin is a $Ca^{2+}$-binding protein of the S-100 family. The proteins comprising the S-100 protein family have two EF-hand structures per molecule of protein. Expression of these family members occurs primarily in neurons or retinal photoreceptor cells, and may also be involved in a wide variety of cellular functions including cell growth, cell-cell communication, energy metabolism and intracellular signal transduction. They have also been linked to various pathologies, including Alzheimer's disease, schizophrenia and cancer. Calgizzarin is highly expressed in lung tissue and is also expressed in kidney, liver, brain, heart and smooth muscle. It is an important androgen-responsive protein produced by Sertoli cells and might play a role in spermatogenesis regulation.

## REFERENCES


1. Zimmer, D.B., et al. 1995. The S-100 protein family: history, function, and expression. Brain Res. Bull. 37: 417-429.
2. Allen, B.G., et al. 1997. Characterization of the $Ca^{2+}$-binding properties of Calgizzarin (S-100C) isolated from chicken gizzard smooth muscle. Biochem. Cell Biol. 74: 687-694.
3. Makino, E., et al. 2004. Introduction of an N-terminal pep apoptotic cell death. J. Mol. Med. 82: 612-620.
4. Melle, C., et al. 2005. Different expression of Calgizzarin (S-100A11) in normal colonic epithelium, adenoma and colorectal carcinoma. Int. J. Oncol. 28: 195-200.
5. Melle, C., et al. 2005. Identification of proteins from colorectal cancer tissue by two-dimensional gel electrophoresis and SELDI mass spectrometry. Int. J. Mol. Med. 16: 11-17.
6. DeSouza, L., et al. 2005. Search for cancer markers from endometrial tissues using differentially labeled tags iTRAQ and cICAT with multidimensional liquid chromatography and tandem mass spectrometry. J. Proteome Res. 4: 377-386.
7. Cross, S.S., et al. 2005. Expression of S100 proteins in no tissue microarrays: S100A6, S100A8, S100A9 and S100A11 are all overexpressed in common cancers. Histopathology 46: 256-269.


## CHROMOSOMAL LOCATION

Genetic locus: S100a11 (mouse) mapping to 3 F2.1.

## PRODUCT

Calgizzarin 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Calgizzarin shRNA Plasmid (m): sc-60315-SH and Calgizzarin shRNA (m) Lentiviral Particles: sc-60315-V as alternate gene silencing products.

For independent verification of Calgizzarin (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-60315A, sc-60315B and sc-60315C.

## 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Calgizzarin siRNA (m) is recommended for the inhibition of Calgizzarin 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 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Calgizzarin gene expression knockdown using RT-PCR Primer: Calgizzarin (m)-PR: sc-60315-PR (20 µl). 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.