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SANTA CRUZ BIOTECHNOLOGY, INC.

MoCo Sulfurase siRNA (m): sc-149494

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The biosynthesis of molybdenum cofactor is a highly conserved pathway that leads to the activation of molybdenum, a transitional element used as a metal hetero-atom in the active site of certain enzymes. MoCo Sulfurase (molybdenum cofactor sulfurase), also known as HMCS and MOS, is a 888 amino acid enzyme that sulfurates molybdenum cofactor so that it can be utilized by xanthine dehydrogenase and aldehyde oxidase. Defects in the gene encoding MoCo Sulfurase is the cause of type II xanthinuria, a condition that is characterized by excretion of large amounts of xanthine in urine and the subsequent formation of xanthine stones. Due to the deficiencies of xanthine dehydrogenase and aldehyde oxidase, patients suffering from type II xanthinuria also cannot metabollize allopurinol into oxypurinol, leading to decreases in uric acid formation and purine synthesis.

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CHROMOSOMAL LOCATION

Genetic locus: Mocos (mouse) mapping to 18 A2.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

MoCo Sulfurase 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 MoCo Sulfurase shRNA Plasmid (m): sc-149494-SH and MoCo Sulfurase shRNA (m) Lentiviral Particles: sc-149494-V as alternate gene silencing products.

For independent verification of MoCo Sulfurase (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-149494A, sc-149494B and sc-149494C.

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

MoCo Sulfurase siRNA (m) is recommended for the inhibition of MoCo Sulfurase 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 MoCo Sulfurase gene expression knockdown using RT-PCR Primer: MoCo Sulfurase (m)-PR: sc-149494-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.