SANTA CRUZ BIOTECHNOLOGY, INC.

CALCOCO1 siRNA (m): sc-141978

BACKGROUND

CALCOCO1 (calcium-binding and coiled-coil domain-containing protein 1), also known as cocoa, calphoglin, sarcoma antigen NY-SAR-3 or coiled-coil coactivator protein, is a 691 amino acid protein that shuttles between the cytoplasm and nucleus and functions as coactivator for aryl hydrocarbon and nuclear receptors. A member of the CALCOCO family, CALCOCO1 is forms a calphoglin complex with PPA1 and PGM 1 and contains multiple functional domains through which it acts as a component of both the androgen signaling pathway and the Wnt/β-catenin signaling pathway. CALCOCO1 exists as three alternatively spliced isoforms (termed Q9P1Z2-1, 2 and 3), which are encoded by genes mapping to human chromosome 12q13.13 and mouse chromosome 15 F3.

REFERENCES

1. Takahashi, K., et al. 2004. Cellular signaling mediated by calphoglin-induced activation of IPP and PGM. Biochem. Biophys. Res. Commun. 325: 203-214.
2. Yang, C.K., et al. 2006. Differential use of functional domains by coiled-coil coactivator in its synergistic coactivator function with β-catenin or GRIP1. J. Biol. Chem. 281: 3389-3397.
3. Yang, C.K., et al. 2006. Role of the N-terminal activation domain of the coiled-coil coactivator in mediating transcriptional activation by β-catenin. Mol. Endocrinol. 20: 3251-3262.
4. Kim, J.H., et al. 2006. Downstream signaling mechanism of the C-terminal activation domain of transcriptional coactivator CoCoA. Nucleic Acids Res. 34: 2736-2750.
5. Yang, C.K., et al. 2008. Differential regulation of the two transcriptional activation domains of the coiled-coil coactivator CoCoA by sumoylation. BMC Mol. Biol. 9: 12.

CHROMOSOMAL LOCATION

Genetic locus: Calcoco1 (mouse) mapping to 15 F3.

PRODUCT

CALCOCO1 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 CALCOCO1 shRNA Plasmid (m): sc-141978-SH and CALCOCO1 shRNA (m) Lentiviral Particles: sc-141978-V as alternate gene silencing products.

For independent verification of CALCOCO1 (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-141978A, sc-141978B and sc-141978C.

PROTOCOLS

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

CALCOCO1 siRNA (m) is recommended for the inhibition of CALCOCO1 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 CALCOCO1 gene expression knockdown using RT-PCR Primer: CALCOCO1 (m)-PR: sc-141978-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.