SANTA CRUZ BIOTECHNOLOGY, INC.

# CRB2 siRNA (m): sc-142560

## BACKGROUND

CRB2 (crumbs homolog 2) is a 1,285 amino acid protein that contains three laminin G-like domains and 15 EGF-like domains and exists as multiple alternatively spliced isoforms that are either secreted or membrane bound. Expressed in kidney and retina, as well as in fetal eye and brain, CRB2 is thought to play a role in the morphogenesis of polarized cells and may be involved in DNA repair. Defects in the gene encoding CRB2 are associated with the pathogenesis of autosomal recessive retinitis pigmentosa (RP) and Leber congenital amaurosis (LCA), the former of which refers to a group of diseases that lead to the degeneration of retinal photoreceptor cells, ultimately resulting in a loss of vision. The gene encoding CRB2 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome.

## REFERENCES


1. Crostella, L., et al. 2001. Hepatocyte growth factor/scatter factor-induces phosphorylation of cortactin in A431 cells in a Src kinase-independent manner. Oncogene. 20: 3735-3745.
2. Katoh, M., et al. 2004. Identification and characterization of Crumbs homolog 2 gene at human chromosome 9q33.3. Int. J. Oncol. 24: 743-749.
3. van den Hurk, J.A., et al. 2005. Characterization of the Crumbs homolog 2 (CRB2) gene and analysis of its role in retinitis pigmentosa and Leber congenital amaurosis. Mol. Vis. 11: 263-273.
4. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609720. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Botuyan, M.V., et al. 2006. Structural basis for the methylation state-specific recognition of Histone H4-K20 by 53BP1 and CRB2 in DNA repair. Cell. 127: 1361-1373.
6. Pardossi-Piquard, R., et al. 2007. Overexpression of human CRB1 or related isoforms, CRB2 and CRB3, does not regulate the human presenilin complex in culture cells. Biochemistry 46: 13704-13710.


## CHROMOSOMAL LOCATION

Genetic locus: Crb2 (mouse) mapping to 2 B.

## PRODUCT

CRB2 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 CRB2 shRNA Plasmid (m): sc-142560-SH and CRB2 shRNA (m) Lentiviral Particles: sc-142560-V as alternate gene silencing products.

For independent verification of CRB2 (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-142560A, sc-142560B and sc-142560C.

## 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

CRB2 siRNA (m) is recommended for the inhibition of CRB2 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 CRB2 gene expression knockdown using RT-PCR Primer: CRB2 (m)-PR: sc-142560-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.