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SANTA CRUZ BIOTECHNOLOGY, INC.

# PARD6G siRNA (m): sc-152025

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

PARD6G (partitioning defective 6 homolog gamma) is a 376 amino acid adaptor protein that is involved in cell polarization and asymmetrical cell division processes. PARD6G contains one OPR domain, one PDZ (DHR) domain and one pseudo-CRIB domain. The PDZ and pseudo-CRIB domains are required for interaction with Rho small GTPases. Through its complex formation with PARD3G, PARD6G participates in the linking of GTP-bound Rho small GTPases to atypical protein kinase C (PKC) proteins. This assembly is involved in formation of normal tight junctions at epithelial cell-cell contacts. When atypical PKC and PARD6G are expressed with a constitutively active RAC, the proteins colocalize to the membrane ruffles, which are structures that occur at the leading edge of polarized cells during movement. Though widely expressed, PARD6G is found at highest levels in adult and fetal kidney.

## REFERENCES


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2. Joberty, G., Petersen, C., Gao, L. and Macara, I.G. 2000. The cell-polarity protein Par6 links Par3 and atypical protein kinase C to Cdc42. Nat. Cell Biol. 2: 531-539.
3. Ohno, S. 2001. Intercellular junctions and cellular polarity: the PAR-aPKC complex, a conserved core cassette playing fundamental roles in cell polarity. Curr. Opin. Cell Biol. 13: 641-648.
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## CHROMOSOMAL LOCATION

Genetic locus: Pard6g (mouse) mapping to 18 E3.

## PROTOCOLS

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

## PRODUCT

PARD6G 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 PARD6G shRNA Plasmid (m): sc-152025-SH and PARD6G shRNA (m) Lentiviral Particles: sc-152025-V as alternate gene silencing products.

For independent verification of PARD6G (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-152025A, sc-152025B and sc-152025C.

## 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

PARD6G siRNA (m) is recommended for the inhibition of PARD6G 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 PARD6G gene expression knockdown using RT-PCR Primer: PARD6G (m)-PR: sc-152025-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.