

Product datasheet for **SR414999**

Rara Mouse siRNA Oligo Duplex (Locus ID 19401)

Product data:

Product Type:	siRNA Oligo Duplexes
Purity:	HPLC purified
Quality Control:	Tested by ESI-MS
Sequences:	Available with shipment
Stability:	One year from date of shipment when stored at -20°C.
# of transfections:	Approximately 330 transfections/2nmol in 24-well plate under optimized conditions (final conc. 10 nM).
Note:	Single siRNA duplex (10nmol) can be ordered.
RefSeq:	NM_001176528 , NM_001177302 , NM_001177303 , NM_009024 , NM_001361954
UniProt ID:	P11416
Synonyms:	Nr1b1; RAR; RARalpha1
Components:	Rara (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 19401) Included - SR30004, Trilencer-27 Universal Scrambled Negative Control siRNA Duplex - 2 nmol Included - SR30005, RNase free siRNA Duplex Resuspension Buffer - 2 ml



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Summary:

Receptor for retinoic acid (PubMed:17205979). Retinoic acid receptors bind as heterodimers to their target response elements in response to their ligands, all-trans or 9-cis retinoic acid, and regulate gene expression in various biological processes (PubMed:17205979). The RXR/RAR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5 (PubMed:17205979). In the absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing transcription corepressors that induce histone deacetylation, chromatin condensation and transcriptional suppression (By similarity). On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators leading to transcriptional activation (PubMed:17205979, PubMed:9230306, PubMed:19078967). Formation of heterocomplex with histone deacetylases might lead to inhibition of RARE DNA element binding and to transcriptional repression (By similarity). Transcriptional activation and RARE DNA element binding might be supported by the transcription factor KLF2 (By similarity). RARA plays an essential role in the regulation of retinoic acid-induced germ cell development during spermatogenesis (PubMed:15901285). Has a role in the survival of early spermatocytes at the beginning prophase of meiosis (PubMed:15901285, PubMed:17905941). In Sertoli cells, may promote the survival and development of early meiotic prophase spermatocytes (PubMed:10660575, PubMed:17905941). In concert with RARG, required for skeletal growth, matrix homeostasis and growth plate function (PubMed:19389355). Together with RXRA, positively regulates microRNA-10a expression, thereby inhibiting the GATA6/VCAM1 signaling response to pulsatile shear stress in vascular endothelial cells (By similarity). In association with HDAC3, HDAC5 and HDAC7 corepressors, plays a role in the repression of microRNA-10a and thereby promotes the inflammatory response (By similarity).[UniProtKB/Swiss-Prot Function]

Performance Guaranteed:

OriGene guarantees that at least two of the three Dicer-Substrate duplexes in the kit will provide at least 70% or more knockdown of the target mRNA when used at 10 nM concentration by quantitative RT-PCR when the TYE-563 fluorescent transfection control duplex (cat# SR30002) indicates that >90% of the cells have been transfected and the HPRT positive control (cat# SR30003) provides 90% knockdown efficiency.

For non-conforming siRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the siRNA kit. To arrange for a free replacement with newly designed duplexes, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled siRNA control (quantitative RT-PCR data required).