

## Product datasheet for **SR410910**

### Gps2 Mouse siRNA Oligo Duplex (Locus ID 56310)

#### 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:	<u><a href="#">NM_019726</a></u> , <u><a href="#">NM_001357906</a></u>
UniProt ID:	<u><a href="#">Q921N8</a></u>
Synonyms:	AI505953
Components:	Gps2 (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 56310) 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:**

Key regulator of inflammation, lipid metabolism and mitochondrion homeostasis that acts by inhibiting the activity of the ubiquitin-conjugating enzyme UBE2N/Ubc13, thereby inhibiting 'Lys-63'-linked ubiquitination (PubMed:22424771, PubMed:24953653, PubMed:28039360, PubMed:28123943, PubMed:29499132). In the nucleus, can both acts as a corepressor and coactivator of transcription, depending on the context (PubMed:18218630, PubMed:24953653, PubMed:25519902, PubMed:27270589, PubMed:28039360). Acts as a transcription coactivator in adipocytes by promoting the recruitment of PPARG to promoters: acts by inhibiting the activity of the ubiquitin-conjugating enzyme UBE2N/Ubc13, leading to stabilization of KDM4A and subsequent histone H3 'Lys-9' (H3K9) demethylation (PubMed:22666460, PubMed:24953653). Promotes cholesterol efflux by acting as a transcription coactivator (By similarity). Acts as a regulator of B-cell development by inhibiting UBE2N/Ubc13, thereby restricting the activation of Toll-like receptors (TLRs) and B-cell antigen receptors (BCRs) signaling pathways (PubMed:28039360). Acts as a key mediator of mitochondrial stress response: in response to mitochondrial depolarization, relocates from the mitochondria to the nucleus following desumoylation and specifically promotes expression of nuclear-encoded mitochondrial genes (PubMed:29499132). Promotes transcription of nuclear-encoded mitochondrial genes by inhibiting UBE2N/Ubc13 (PubMed:29499132). Can also act as a corepressor as part of the N-Cor repressor complex by repressing active PPARG (PubMed:25519902). Plays an anti-inflammatory role in macrophages and is required for insulin sensitivity by acting as a corepressor (PubMed:27270589). Plays an anti-inflammatory role during the hepatic acute phase response by interacting with sumoylated NR1H2 and NR5A2 proteins, thereby preventing N-Cor corepressor complex dissociation (By similarity). In the cytosol, also plays a non-transcriptional role by regulating insulin signaling and pro-inflammatory pathways (PubMed:22424771, PubMed:28123943). In the cytoplasm, acts as a negative regulator of inflammation by inhibiting the proinflammatory TNF-alpha pathway; acts by repressing UBE2N/Ubc13 activity (PubMed:22424771). In the cytoplasm of adipocytes, restricts the activation of insulin signaling via inhibition of UBE2N/Ubc13-mediated ubiquitination of AKT (PubMed:28123943). Able to suppress G-protein- and mitogen-activated protein kinase-mediated signal transduction (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).