

Product datasheet for **SR422944**

Trpm2 Mouse siRNA Oligo Duplex (Locus ID 28240)

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_138301
UniProt ID:	Q91YD4
Synonyms:	9830168K16Rik; C79133; LTRPC2; Trp7; TRPC7; Trrp7
Components:	Trpm2 (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 28240) 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:

Nonselective, voltage-independent cation channel that mediates Na⁽⁺⁾ and Ca⁽²⁺⁾ influx, leading to increased cytoplasmic Ca⁽²⁺⁾ levels (PubMed:11804595, PubMed:19454650, PubMed:21753080, PubMed:22493272). Functions as ligand-gated ion channel. Binding of ADP-ribose to the cytoplasmic Nudix domain causes a conformation change; the channel is primed but still requires Ca⁽²⁺⁾ binding to trigger channel opening. Extracellular calcium passes through the channel and increases channel activity (By similarity). Also contributes to Ca⁽²⁺⁾ release from intracellular stores in response to ADP-ribose (PubMed:21753080). Plays a role in numerous processes that involve signaling via intracellular Ca⁽²⁺⁾ levels (PubMed:21753080). Besides, mediates the release of lysosomal Zn⁽²⁺⁾ stores in response to reactive oxygen species, leading to increased cytosolic Zn⁽²⁺⁾ levels (By similarity). Activated by moderate heat (35 to 40 degrees Celsius) (PubMed:27533035, PubMed:27562954). Activated by intracellular ADP-ribose, beta-NAD (NAD⁽⁺⁾) and similar compounds, and by oxidative stress caused by reactive oxygen or nitrogen species (PubMed:19454650, PubMed:21753080, PubMed:22493272). The precise physiological activators are under debate; the true, physiological activators may be ADP-ribose and ADP-ribose-2'-phosphate. Activation by ADP-ribose and beta-NAD is strongly increased by moderate heat (35 to 40 degrees Celsius) (By similarity). Likewise, reactive oxygen species lower the threshold for activation by moderate heat (37 degrees Celsius) (PubMed:22493272, PubMed:25817999). Plays a role in mediating behavioral and physiological responses to moderate heat and thereby contributes to body temperature homeostasis (PubMed:27533035, PubMed:27562954). Plays a role in insulin secretion, a process that requires increased cytoplasmic Ca⁽²⁺⁾ levels (PubMed:20921208, PubMed:25817999). Required for normal IFNG and cytokine secretion and normal innate immune immunity in response to bacterial infection (PubMed:21709234). Required for normal phagocytosis and cytokine release by macrophages exposed to zymosan (in vitro) (PubMed:22493272). Plays a role in dendritic cell differentiation and maturation, and in dendritic cell chemotaxis via its role in regulating cytoplasmic Ca⁽²⁺⁾ levels (PubMed:21753080). Plays a role in the regulation of the reorganization of the actin cytoskeleton and filopodia formation in response to reactive oxygen species via its function in increasing cytoplasmic Ca⁽²⁺⁾ and Zn⁽²⁺⁾ levels (By similarity). Confers susceptibility to cell death following oxidative stress (PubMed:25562606). [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).