

## Product datasheet for **SR421062**

### **Nfatc4 Mouse siRNA Oligo Duplex (Locus ID 73181)**

#### **Product data:**

<b>Product Type:</b>	siRNA Oligo Duplexes
<b>Purity:</b>	HPLC purified
<b>Quality Control:</b>	Tested by ESI-MS
<b>Sequences:</b>	Available with shipment
<b>Stability:</b>	One year from date of shipment when stored at -20°C.
<b># of transfections:</b>	Approximately 330 transfections/2nmol in 24-well plate under optimized conditions (final conc. 10 nM).
<b>Note:</b>	Single siRNA duplex (10nmol) can be ordered.
<b>RefSeq:</b>	<a href="#">NM_001168346</a> , <a href="#">NM_023699</a>
<b>UniProt ID:</b>	<a href="#">Q8K120</a>
<b>Synonyms:</b>	3110041H08Rik; AW107667; AW546455; Nfat3
<b>Components:</b>	Nfatc4 (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 73181) 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:**

Ca(2+)-regulated transcription factor that is involved in several processes, including the development and function of the immune, cardiovascular, musculoskeletal, and nervous systems. Involved in T-cell activation, stimulating the transcription of cytokine genes, including that of IL2 and IL4 (PubMed:17198697). Along with NFATC3, involved in embryonic heart development (PubMed:12750314, PubMed:17198697). Involved in mitochondrial energy metabolism required for cardiac morphogenesis and function (PubMed:12750314). Transactivates many genes involved in heart physiology. Along with GATA4, binds to and activates NPPB/BNP promoter (PubMed:9568714). Activates NPPA/ANP/ANF and MYH7/beta-MHC transcription (By similarity). Binds to and transactivates AGTR2 gene promoter (PubMed:17198697). Involved in the regulation of adult hippocampal neurogenesis. Involved in BDNF-driven pro-survival signaling in hippocampal adult-born neurons. Involved in the formation of long-term spatial memory and long-term potentiation (PubMed:22586092). In cochlear nucleus neurons, may play a role in deafferentation-induced apoptosis during a developmental critical period when auditory neurons depend on afferent input for survival (PubMed:18354019). Binds to and activates the BACE1/Beta-secretase 1 promoter, hence may regulate the proteolytic processing of the amyloid precursor protein (APP). Plays a role in adipocyte differentiation. May be involved in myoblast differentiation into myotubes (By similarity). Binds the consensus DNA sequence 5'-GGAAAAT-3' (Probable). In the presence of CREBBP, activates TNF transcription. Binds to PPARG gene promoter and regulates its activity (By similarity). Binds to PPARG and REG3G gene promoters (PubMed:17198697).  
[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](mailto: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).