

Product datasheet for **SR417356**

Ythdf1 Mouse siRNA Oligo Duplex (Locus ID 228994)

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_173761
UniProt ID:	P59326
Synonyms:	2210410K23Rik; 8030473O16
Components:	Ythdf1 (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 228994) 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:

Specifically recognizes and binds N6-methyladenosine (m6A)-containing mRNAs, and promotes mRNA translation efficiency (PubMed:30401835). M6A is a modification present at internal sites of mRNAs and some non-coding RNAs and plays a role in the efficiency of mRNA splicing, processing and stability (PubMed:30401835). Acts as a regulator of mRNA translation efficiency: promotes ribosome loading to m6A-containing mRNAs and interacts with translation initiation factors eIF3 (EIF3A or EIF3B) to facilitate translation initiation (By similarity). Required to facilitate learning and memory formation in the hippocampus by enhancing protein synthesis upon neuronal stimulation: in response to neuronal stimulation, binds to m6A-containing neuronal mRNAs, promoting their translation, thereby contributing to learning and memory (PubMed:30401835). Acts as a regulator of axon guidance by binding to m6A-containing ROBO3 transcripts, thereby promoting their translation (PubMed:30843071). Acts as a negative regulator of antigen cross-presentation in myeloid dendritic cells (PubMed:30728504). Acts by binding and promoting translation of m6A-containing transcripts encoding proteins involved in lysosomal degradation and phagosome maturation, leading to increased antigen degradation in myeloid dendritic cells (PubMed:30728504). In the context of tumorigenesis, negative regulation of antigen cross-presentation limits the anti-tumor response by reducing efficiency of tumor-antigen cross-presentation (PubMed:30728504).[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).