

Product datasheet for **SR307818**

CPEB3 Human siRNA Oligo Duplex (Locus ID 22849)

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_001178137 , NM_014912
UniProt ID:	Q8NE35
Components:	CPEB3 (Human) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 22849) 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:

Sequence-specific RNA-binding protein which acts as a translational repressor in the basal unstimulated state but, following neuronal stimulation, acts as a translational activator (By similarity). In contrast to CPEB1, does not bind to the cytoplasmic polyadenylation element (CPE), a uridine-rich sequence element within the mRNA 3' UTR, but binds to a U-rich loop within a stem-loop structure (By similarity). Required for the consolidation and maintenance of hippocampal-based long term memory (By similarity). In the basal state, binds to the mRNA 3' UTR of the glutamate receptors GRIA2/GLUR2 mRNA and negatively regulates their translation (By similarity). Also represses the translation of DLG4, GRIN1, GRIN2A and GRIN2B (By similarity). When activated, acts as a translational activator of GRIA1 and GRIA2 (By similarity). In the basal state, suppresses SUMO2 translation but activates it following neuronal stimulation (By similarity). Binds to the 3' UTR of TRPV1 mRNA and represses TRPV1 translation which is required to maintain normal thermoception (By similarity). Binds actin mRNA, leading to actin translational repression in the basal state and to translational activation following neuronal stimulation (By similarity). Negatively regulates target mRNA levels by binding to TOB1 which recruits CNOT7/CAF1 to a ternary complex and this leads to target mRNA deadenylation and decay (PubMed:21336257). In addition to its role in translation, binds to and inhibits the transcriptional activation activity of STAT5B without affecting its dimerization or DNA-binding activity. This, in turn, represses transcription of the STAT5B target gene EGFR which has been shown to play a role in enhancing learning and memory performance (PubMed:20639532). In contrast to CPEB1, CPEB2 and CPEB4, not required for cell cycle progression (PubMed:26398195).[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).