

Product datasheet for **SR506385**

Spast Rat siRNA Oligo Duplex (Locus ID 362700)

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_001108702
UniProt ID:	B2RYN7
Synonyms:	Spg4
Components:	Spast (Rat) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 362700) 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:

ATP-dependent microtubule severing protein that specifically recognizes and cuts microtubules that are polyglutamylated. Preferentially recognizes and acts on microtubules decorated with short polyglutamate tails: severing activity increases as the number of glutamates per tubulin rises from one to eight, but decreases beyond this glutamylation threshold. Severing activity is not dependent on tubulin acetylation or deetyrosination. Microtubule severing promotes reorganization of cellular microtubule arrays and the release of microtubules from the centrosome following nucleation. It is critical for the biogenesis and maintenance of complex microtubule arrays in axons, spindles and cilia. SPAST is involved in abscission step of cytokinesis and nuclear envelope reassembly during anaphase in cooperation with the ESCRT-III complex. Recruited at the midbody, probably by IST1, and participates in membrane fission during abscission together with the ESCRT-III complex. Recruited to the nuclear membrane by IST1 and mediates microtubule severing, promoting nuclear envelope sealing and mitotic spindle disassembly during late anaphase. Required for membrane traffic from the endoplasmic reticulum (ER) to the Golgi and endosome recycling. Recruited by IST1 to endosomes and regulates early endosomal tubulation and recycling by mediating microtubule severing (By similarity). Probably plays a role in axon growth and the formation of axonal branches (PubMed:18234839).[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).