

Product datasheet for SR309336

NOP53 Human siRNA Oligo Duplex (Locus ID 29997)

Product data:

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

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:	<u>NM 015710</u>
UniProt ID:	<u>Q9NZM5</u>
Synonyms:	GLTSCR2; PICT-1; PICT1
Components:	GLTSCR2 (Human) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 29997) Included - SR30004, Trilencer-27 Universal Scrambled Negative Control siRNA Duplex - 2 nmol Included - SR30005, RNAse free siRNA Duplex Resuspension Buffer - 2 ml



This product is to be used for laboratory only. Not for diagnostic or therapeutic use. ©2021 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

CRIGENE NOP53 Human siRNA Oligo Duplex (Locus ID 29997) – SR309336

Nucleolar protein which is involved in the integration of the 5S RNP into the ribosomal large Summary: subunit during ribosome biogenesis (PubMed:24120868). In ribosome biogenesis, may also play a role in rRNA transcription (PubMed:27729611). Also functions as a nucleolar sensor that regulates the activation of p53/TP53 in response to ribosome biogenesis perturbation, DNA damage and other stress conditions (PubMed:21741933, PubMed:24120868, PubMed:27829214). DNA damage or perturbation of ribosome biogenesis disrupt the interaction between NOP53 and RPL11 allowing RPL11 transport to the nucleoplasm where it can inhibit MDM2 and allow p53/TP53 activation (PubMed:24120868, PubMed:27829214). It may also positively regulate the function of p53/TP53 in cell cycle arrest and apoptosis through direct interaction, preventing its MDM2-dependent ubiquitin-mediated proteasomal degradation (PubMed:22522597). Originally identified as a tumor suppressor, it may also play a role in cell proliferation and apoptosis by positively regulating the stability of PTEN, thereby antagonizing the PI3K-AKT/PKB signaling pathway (PubMed:15355975, PubMed:16971513, PubMed:27729611). May also inhibit cell proliferation and increase apoptosis through its interaction with NF2 (PubMed:21167305). May negatively regulate NPM1 by regulating its nucleoplasmic localization, oligomerization and ubiquitin-mediated proteasomal degradation (PubMed:25818168). Thereby, may prevent NPM1 interaction with MYC and negatively regulate transcription mediated by the MYC-NPM1 complex (PubMed:25956029). May also regulate cellular aerobic respiration (PubMed:24556985). In the cellular response to viral infection, may play a role in the attenuation of interferon-beta through the inhibition of DDX58/RIG-1 (PubMed:27824081).[UniProtKB/Swiss-Prot Function] Performance OriGene guarantees that at least two of the three Dicer-Substrate duplexes in the kit will Guaranteed: 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

This product is to be used for laboratory only. Not for diagnostic or therapeutic use. ©2021 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

required).