

Product datasheet for **TR302911**

NADPH oxidase 4 (NOX4) Human shRNA Plasmid Kit (Locus ID 50507)

Product data:

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| Product Type: | shRNA Plasmids |
| Product Name: | NADPH oxidase 4 (NOX4) Human shRNA Plasmid Kit (Locus ID 50507) |
| Locus ID: | 50507 |
| Synonyms: | KOX; KOX-1; RENOX |
| Vector: | pRS (TR20003) |
| E. coli Selection: | Ampicillin |
| Mammalian Cell Selection: | Puromycin |
| Format: | Retroviral plasmids |
| Components: | NOX4 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 50507). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free. |
| RefSeq: | <u>BC040105</u> , <u>NM_001143836</u> , <u>NM_001143837</u> , <u>NM_001291926</u> , <u>NM_001291927</u> , <u>NM_001291929</u> , <u>NM_001300995</u> , <u>NM_016931</u> , <u>NR_026571</u> , <u>NR_120406</u> , <u>NM_016931.1</u> , <u>NM_016931.2</u> , <u>NM_016931.3</u> , <u>NM_016931.4</u> , <u>NM_001143836.1</u> , <u>NM_001143836.2</u> , <u>NM_001143837.1</u> , <u>NM_001291926.1</u> , <u>NM_001300995.1</u> , <u>NM_001291929.1</u> , <u>NM_001291927.1</u> , <u>BC040105.1</u> , <u>BC051371</u> |
| UniProt ID: | <u>Q9NPH5</u> |
| Summary: | This gene encodes a member of the NOX-family of enzymes that functions as the catalytic subunit the NADPH oxidase complex. The encoded protein is localized to non-phagocytic cells where it acts as an oxygen sensor and catalyzes the reduction of molecular oxygen to various reactive oxygen species (ROS). The ROS generated by this protein have been implicated in numerous biological functions including signal transduction, cell differentiation and tumor cell growth. A pseudogene has been identified on the other arm of chromosome 11. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Jan 2009] |
| shRNA Design: | These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service . |



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**Performance
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, 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 shRNA control (Western Blot data preferred).