

## **Product datasheet for TL511728**

## Neil3 Mouse shRNA Plasmid (Locus ID 234258)

**Product data:** 

**Product Type:** shRNA Plasmids

Product Name: Neil3 Mouse shRNA Plasmid (Locus ID 234258)

**Locus ID:** 234258

**Synonyms:** Al449477; BC034753; C85903

Vector: pGFP-C-shLenti (TR30023)

E. coli Selection: Chloramphenicol (34 ug/ml)

**Mammalian Cell** 

Selection:

Puromycin

Format: Lentiviral plasmids

Components: Neil3 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 234258).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.

RefSeq: <u>BC024921</u>, <u>BC034753</u>, <u>NM 146208</u>, <u>NM 146208.1</u>, <u>NM 146208.2</u>

UniProt ID: Q8K203

**Summary:** DNA glycosylase which prefers single-stranded DNA (ssDNA), or partially ssDNA structures

such as bubble and fork structures, to double-stranded DNA (dsDNA). In vitro, displays strong

glycosylase activity towards the hydantoin lesions spiroiminodihydantoin (Sp) and

guanidinohydantoin (Gh) in both ssDNA and dsDNA; also recognizes FapyA, FapyG, 5-OHU, 5-OHC, 5-OHMH, Tg and 8-oxoA lesions in ssDNA. No activity on 8-oxoG detected. Also shows weak DNA-(apurinic or apyrimidinic site) lyase activity. In vivo, appears to be the primary enzyme involved in removing Sp and Gh from ssDNA in neonatal tissues. Seems to be an important facilitator of cell proliferation in certain populations, for example neural

stem/progenitor cells and tumor cells, suggesting a role in replication-associated DNA repair.

[UniProtKB/Swiss-Prot Function]

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 <u>techsupport@origene.com</u>. 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).