

Product datasheet for TF303103

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

MUC16 Human shRNA Plasmid Kit (Locus ID 94025)

Product data:

Product Type: shRNA Plasmids

Product Name: MUC16 Human shRNA Plasmid Kit (Locus ID 94025)

Locus ID: 94025 **Synonyms:** CA125

Vector: pRFP-C-RS (TR30014)

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

Mammalian Cell

Selection:

Puromycin

Format: Retroviral plasmids

Components: MUC16 - Human, 4 unique 29mer shRNA constructs in retroviral RFP vector(Gene ID = 94025).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRFP-C-RS Vector, TR30015, included for free.

RefSeq: <u>NM 024690, NM 024690.2, NM 024690.1</u>

UniProt ID: Q8WXI7

Summary: This gene encodes a protein that is a member of the mucin family. Mucins are high molecular

weight, O-glycosylated proteins that play an important role in forming a protective mucous barrier, and are found on the apical surfaces of the epithelia. The encoded protein is a membrane-tethered mucin that contains an extracellular domain at its amino terminus, a large tandem repeat domain, and a transmembrane domain with a short cytoplasmic domain. The amino terminus is highly glycosylated, while the repeat region contains 156 amino acid repeats unit that are rich in serines, threonines, and prolines. Interspersed within the repeats are Sea urchin sperm protein Enterokinase and Agrin (SEA) modules, leucine-rich repeats and ankyrin (ANK) repeats. These regions together form the ectodomain, and there is a potential cleavage site found near an SEA module close to the transmembrane domain. This

protein is thought to play a role in forming a barrier, protecting epithelial cells from pathogens. Products of this gene have been used as a marker for different cancers, with higher expression levels associated with poorer outcomes. [provided by RefSeq, May 2017]

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 <u>custom shRNA service</u>.







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).