

## **Product datasheet for TG316625**

## OriGene Technologies, Inc.

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## EMA (MUC1) Human shRNA Plasmid Kit (Locus ID 4582)

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** EMA (MUC1) Human shRNA Plasmid Kit (Locus ID 4582)

**Locus ID:** 4582

Synonyms: ADMCKD; ADMCKD1; ADTKD2; CA 15-3; CD227; EMA; H23AG; KL-6; MAM6; MCD; MCKD;

MCKD1; MUC-1; MUC-1/SEC; MUC-1/X; MUC1/ZD; PEM; PEMT; PUM

**Vector:** pGFP-V-RS (TR30007)

E. coli Selection: Kanamycin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

**Components:** MUC1 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 4582).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.

RefSeq: NM 001018016, NM 001018017, NM 001018021, NM 001044390, NM 001044391,

NM 001044392, NM 001044393, NM 001204285, NM 001204286, NM 001204287, NM 001204288, NM 001204289, NM 001204290, NM 001204291, NM 001204292, NM 001204293, NM 001204294, NM 001204295, NM 001204296, NM 001204297,

NM 002456, NM 182741, NM 001018017.1, NM 001018017.2, NM 002456.1, NM 002456.2,

NM 002456.3, NM 002456.4, NM 002456.5, NM 001018016.1, NM 001018016.2,

NM 001044392.1, NM 001044392.2, NM 001044390.1, NM 001044390.2, NM 001044391.1, NM 001044391.2, NM 001044393.1, NM 001044393.2, NM 001204297.1, NM 001204293.1, NM 001204295.1, NM 001204296.1, NM 001204290.1, NM 001204288.1, NM 001204294.1, NM 001204289.1, NM 001204289.1, NM 001204285.1,

NM 001204286.1, BC120974, BC120975, BM969296, BM971650, NM 001044393.3,

NM 001204296.2, NM 001204297.2, NM 001018016.3, NM 001204294.2, NM 001044390.3, NM 001204285.2, NM 001204287.2, NM 001204289.2, NM 001044391.3, NM 001204290.2, NM 001204293.2, NM 001044392.3, NM 001204288.2, NM 002456.6, NM 001018017.3

NIVI 001204293.2, NIVI 001044392.3, NIVI 001204288.2, NIVI 002430.0, NIVI 0010180

UniProt ID: P15941





Summary:

This gene encodes a membrane-bound protein that is a member of the mucin family. Mucins are O-glycosylated proteins that play an essential role in forming protective mucous barriers on epithelial surfaces. These proteins also play a role in intracellular signaling. This protein is expressed on the apical surface of epithelial cells that line the mucosal surfaces of many different tissues including lung, breast stomach and pancreas. This protein is proteolytically cleaved into alpha and beta subunits that form a heterodimeric complex. The N-terminal alpha subunit functions in cell-adhesion and the C-terminal beta subunit is involved in cell signaling. Overexpression, aberrant intracellular localization, and changes in glycosylation of this protein have been associated with carcinomas. This gene is known to contain a highly polymorphic variable number tandem repeats (VNTR) domain. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Feb 2011]

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).