

Product datasheet for **KN219922**

EMA (MUC1) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	EMA
Locus ID:	4582
Components:	<p>KN219922G1, EMA gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCCTGCTTAGGTGGTCTTCG</p> <p>KN219922G2, EMA gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTGCTCCTCACAGTGCTTAC</p> <p>KN219922D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

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AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
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 TACAGGCATC GTGGTGTAC GCTCGTCGTT TGGTATGGCT TCATTCAGCT CCGGTTCCCA ACGATC

GE100003, scramble sequence in pCas-Guide vector

Disclaimer:

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq:

[NM_001018016](#), [NM_001018017](#), [NM_001018021](#), [NM_001044390](#), [NM_001044391](#),
[NM_001044392](#), [NM_001044393](#), [NM_001204285](#), [NM_001204286](#), [NM_001204287](#),
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[NM_001204293](#), [NM_001204294](#), [NM_001204295](#), [NM_001204296](#), [NM_001204297](#),
[NM_002456](#), [NM_182741](#)

UniProt ID:

[P15941](#)

Synonyms:

ADMCKD; ADMCKD1; CA 15-3; CD227; EMA; H23AG; KL-6; MAM6; MCD; MCKD; MCKD1; MUC-1; MUC-1/SEC

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]

Product images: