

Product datasheet for **KN206548**

PSMA (FOLH1) 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:	PSMA
Locus ID:	2346
Components:	<p>KN206548G1, PSMA gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCTCCTTCACGAAACCGACT</p> <p>KN206548G2, PSMA gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GAGGCGCCCCCTACCGAAG</p> <p>KN206548D, 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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 ACAGGCATCG TGGTGTACG CTCGTCGTTT GGTATGGCTT CATTACGCTC CGTTCCCAA CGATC

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_001014986](#), [NM_001193471](#), [NM_001193472](#), [NM_001193473](#), [NM_004476](#),
[NM_001351236](#)

UniProt ID:

[Q04609](#)

Synonyms:

FGCP; FOLH; GCP2; GCPII; mGCP; NAALAD1; NAALAdase; PSM; PSMA

Summary:

This gene encodes a type II transmembrane glycoprotein belonging to the M28 peptidase family. The protein acts as a glutamate carboxypeptidase on different alternative substrates, including the nutrient folate and the neuropeptide N-acetyl-L-aspartyl-L-glutamate and is expressed in a number of tissues such as prostate, central and peripheral nervous system and kidney. A mutation in this gene may be associated with impaired intestinal absorption of dietary folates, resulting in low blood folate levels and consequent hyperhomocysteinemia. Expression of this protein in the brain may be involved in a number of pathological conditions associated with glutamate excitotoxicity. In the prostate the protein is up-regulated in cancerous cells and is used as an effective diagnostic and prognostic indicator of prostate cancer. This gene likely arose from a duplication event of a nearby chromosomal region. Alternative splicing gives rise to multiple transcript variants encoding several different isoforms. [provided by RefSeq, Jul 2010]

Product images:
