

Product datasheet for **KN204120**

MOCOS 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: MOCOS
Locus ID: 55034
Components: **KN204120G1**, MOCOS gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCGTAGCCGTAGGCTAGCCG
KN204120G2, MOCOS gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCCTGACTCCGCCGCCGCGC
KN204120D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.

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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 ACAACGATCG GAGGACCGAA GGAGCTAACC GCTTTTTTGC ACAACATGGG GGATCATGTA ACTCGCCTT

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_017947](#)

UniProt ID:

[Q96EN8](#)

Synonyms:

HMCS; MCS; MOS; XAN2

Summary:

This gene encodes an enzyme that sulfurates the molybdenum cofactor which is required for activation of the xanthine dehydrogenase (XDH) and aldehyde oxidase (AO) enzymes. XDH catalyzes the conversion of hypoxanthine to uric acid via xanthine, as well as the conversion of allopurinol to oxypurinol, and pyrazinamide to 5-hydroxy pyrazinamide. Mutations in this gene cause the metabolic disorder classical xanthinuria type II which is characterized by the loss of XDH/XO and AO enzyme activity, decreased levels of uric acid in the urine, increased levels of xanthine and hypoxanthine in the serum and urine, formation of xanthine stones in the urinary tract, and myositis due to tissue deposition of xanthine. [provided by RefSeq, Apr 2017]

