

Product datasheet for **KN301155**

Alox12 Mouse 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:	Alox12
Locus ID:	11684
Components:	<p>KN301155G1, Alox12 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TACCGCGTCCGTGTGGTCAC</p> <p>KN301155G2, Alox12 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCCTCAACCTAGTGCGTTTG</p> <p>KN301155D, 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_001331118](#), [NM_007440](#)

UniProt ID:

[P39655](#)

Synonyms:

9930022G08Rik; Alox12p; P-12LO

Summary:

Non-heme iron-containing dioxygenase that catalyzes the stereo-specific peroxidation of free and esterified polyunsaturated fatty acids generating a spectrum of bioactive lipid mediators. Mainly converts arachidonic acid to (12S)-hydroperoxyeicosatetraenoic acid/(12S)-HPETE but can also metabolize linoleic acid. Has a dual activity since it also converts leukotriene A4/LTA4 into both the bioactive lipoxin A4/LXA4 and lipoxin B4/LXB4. Through the production of specific bioactive lipids like (12S)-HPETE it regulates different biological processes including platelet activation. It also probably positively regulates angiogenesis through regulation of the expression of the vascular endothelial growth factor. Plays a role in apoptotic process, promoting the survival of vascular smooth muscle cells for instance. May also play a role in the control of cell migration and proliferation.[UniProtKB/Swiss-Prot Function]

