

Product datasheet for **KN308091**

Ido1 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:	Ido1
Locus ID:	15930
Components:	<p>KN308091G1, Ido1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CATCTATGTGGTGGTCTTCA</p> <p>KN308091G2, Ido1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTTTGCTCTACCACATCCAC</p> <p>KN308091D, 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 TGGCCGCAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCCGGC
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TACAGGCATC GTGGTGTAC GCTCGTCGTT TGGTATGGCT TCATTCAGCT CCGGTTCCCA ACGATC

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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_001293690](#), [NM_008324](#)

UniProt ID:

[P28776](#)

Synonyms:

Ido; Indo

Summary:

Catalyzes the first and rate limiting step of the catabolism of the essential amino acid tryptophan along the kynurenine pathway. Involved in the peripheral immune tolerance, contributing to maintain homeostasis by preventing autoimmunity or immunopathology that would result from uncontrolled and overreacting immune responses. Tryptophan shortage inhibits T lymphocytes division and accumulation of tryptophan catabolites induces T-cell apoptosis and differentiation of regulatory T-cells. Acts as a suppressor of anti-tumor immunity (PubMed:25691885). Limits the growth of intracellular pathogens by depriving tryptophan. Protects the fetus from maternal immune rejection (Ref. 3).[UniProtKB/Swiss-Prot Function]

Product images:

