

Product datasheet for **KN308091BN**

Ido1 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)
Format: 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control
Donor DNA: mBFP-Neo
Symbol: Ido1
Locus ID: 15930
Components: **KN308091G1**, Ido1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)
KN308091G2, Ido1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)
KN308091BND, donor DNA containing left and right homologous arms and mBFP-Neo functional cassette.

Homologous arm and mBFP-Neo sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **mBFP-Neo in green**; **Right arm in violet**

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 GGTATGGCTT CATTAGCTC CGGTTCCCAA 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_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:

