

Product datasheet for **KN316845**

Stat3 Mouse Gene Knockout Kit (CRISPR)

Product data:

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| Product Type: | Knockout Kits (CRISPR) |
| Format: | 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control |
| Donor DNA: | GFP-puro |
| Symbol: | Stat3 |
| Locus ID: | 20848 |
| Components: | KN316845G1 , Stat3 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTACAGCGACAGCTTCCCCA KN316845G2 , Stat3 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCAGCTGGACACACGCTACC KN316845D , 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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 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_011486](#), [NM_213659](#), [NM_213660](#)

UniProt ID:

[P42227](#)

Synonyms:

1110034C02Rik; Aprf; AW109958

Summary:

The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Sep 2015]

Product images:

