

## Product datasheet for **KN307068BN**

### Gnas 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:	Gnas
Locus ID:	14683
Components:	<b>KN307068G1</b> , Gnas gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) <b>KN307068G2</b> , Gnas gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) <b>KN307068BND</b> , donor DNA containing left and right homologous arms and mBFP-Neo functional cassette. <b>GE100003</b> , 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:	<a href="#">NM_001077507</a> , <a href="#">NM_001077510</a> , <a href="#">NM_010309</a> , <a href="#">NM_010310</a> , <a href="#">NM_019690</a> , <a href="#">NM_022000</a> , <a href="#">NM_201616</a> , <a href="#">NM_201617</a> , <a href="#">NM_201618</a> , <a href="#">NR_003258</a>
UniProt ID:	<a href="#">P63094</a>
Synonyms:	5530400H20Rik; A930027G11Rik; C130027O20Rik; Galphas; Gnas1; Gnasxl; GPSA; Gs-alpha



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**Summary:**

This locus has a highly complex imprinted expression pattern. It gives rise to maternally, paternally, and biallelically expressed transcripts that are derived from four alternative promoters and 5' exons. Some transcripts contain a differentially methylated region (DMR) at their 5' exons, which is commonly found in imprinted genes and correlates with transcript expression. This gene has an antisense transcript. One of the transcripts produced from this locus, and the antisense transcript, are both paternally expressed noncoding RNAs, and may regulate imprinting in this region. In addition, one of the transcripts contains a second overlapping ORF, which encodes a structurally unrelated protein - Alex. Alternative splicing of downstream exons is also observed, which results in different forms of the stimulatory G-protein alpha subunit, a key element of the classical signal transduction pathway linking receptor-ligand interactions with the activation of adenylyl cyclase and a variety of cellular reponses. Additional transcript variants have been found for this gene, but the full-length nature and/or biological validity of some variants have not been determined. [provided by RefSeq, Jun 2015]

**Product images:**
