

# **Product datasheet for KN212624BN**

## OriGene Technologies, Inc.

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### TGF beta 2 (TGFB2) Human 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: TGF beta 2

**Locus ID:** 7042

**Components:** KN212624G1, TGF beta 2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target

Sequence: TGGACCAGTTCATGCGCAAG

KN212624G2, TGF beta 2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target

Sequence: TAGATGGAAATCACCTCCGG

KN212624BND, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

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 001135599, NM 003238, NR 138148, NR 138149

UniProt ID: P61812

**Synonyms:** G-TSF; LDS4; TGF-beta2

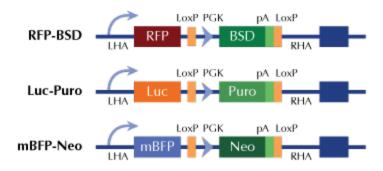


#### **Summary:**

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate a latency-associated peptide (LAP) and a mature peptide, and is found in either a latent form composed of a mature peptide homodimer, a LAP homodimer, and a latent TGF-beta binding protein, or in an active form consisting solely of the mature peptide homodimer. The mature peptide may also form heterodimers with other TGF-beta family members. Disruption of the TGF-beta/SMAD pathway has been implicated in a variety of human cancers. A chromosomal translocation that includes this gene is associated with Peters' anomaly, a congenital defect of the anterior chamber of the eye. Mutations in this gene may be associated with Loeys-Dietz syndrome. This gene encodes multiple isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Aug 2016]

### **Product images:**

### Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter