

Product datasheet for KN200973RB

OriGene Technologies, Inc.

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TGF beta 1 (TGFB1) Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control

Donor DNA: RFP-BSD Symbol: TGF beta 1

Locus ID: 7040

Components: KN200973G1, TGF beta 1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN200973G2, TGF beta 1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN200973RBD**, donor DNA containing left and right homologous arms and RFP-BSD

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 000660

 UniProt ID:
 P01137

Synonyms: CED; DPD1; LAP; TGFB; TGFbeta

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 TGFB family members. This encoded protein regulates cell proliferation, differentiation and growth, and can modulate expression and activation of other growth factors including interferon gamma and tumor necrosis factor alpha. This gene is frequently upregulated in tumor cells, and mutations in this gene result in

Camurati-Engelmann disease. [provided by RefSeq, Aug 2016]





Product images:

Donor Vector Edited Chromosome



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