

Product datasheet for KN214474BN

COL27A1 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: COL27A1
Locus ID: 85301

Components: KN214474G1, COL27A1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN214474G2, COL27A1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN214474BND, 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: <u>NM 032161</u>, <u>NM 032888</u>

UniProt ID: Q8IZC6
Synonyms: STLS

Summary: This gene encodes a member of the fibrillar collagen family, and plays a role during the

calcification of cartilage and the transition of cartilage to bone. The encoded protein product

is a preproprotein. It includes an N-terminal signal peptide, which is followed by an N-

terminal propetide, mature peptide and a C-terminal propeptide. The N-terminal propeptide contains thrombospondin N-terminal-like and laminin G-like domains. The mature peptide is a major triple-helical region. The C-terminal propeptide, also known as COLFI domain, plays crucial roles in tissue growth and repair. Mutations in this gene cause Steel syndrome.

Alternatively spliced transcript variants have been found, but the full-length nature of some

variants has not been determined. [provided by RefSeq, Sep 2014]



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Product images:

Donor Vector Edited Chromosome



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