

## Product datasheet for **KN212443**

### Collagen V (COL5A1) Human Gene Knockout Kit (CRISPR)

#### Product data:

**Product Type:** Knockout Kits (CRISPR)  
**Format:** 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control  
**Donor DNA:** GFP-puro  
**Symbol:** Collagen V  
**Locus ID:** 1289  
**Components:** **KN212443G1**, Collagen V gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGC GCGCTTTCCAGCGGGTA  
**KN212443G2**, Collagen V gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CGCGCTGCGCGCTTTCCAGC  
**KN212443D**, 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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GGGGGATCAT GTAACCTGCC TT

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**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\\_000093](#), [NM\\_001278074](#)

**UniProt ID:**

[P20908](#)

**Synonyms:**

alpha 1 type V collagen; collagen, type V, alpha 1; OTTHUMP00000022513; OTTHUMP00000064637

**Summary:**

This gene encodes an alpha chain for one of the low abundance fibrillar collagens. Fibrillar collagen molecules are trimers that can be composed of one or more types of alpha chains. Type V collagen is found in tissues containing type I collagen and appears to regulate the assembly of heterotypic fibers composed of both type I and type V collagen. This gene product is closely related to type XI collagen and it is possible that the collagen chains of types V and XI constitute a single collagen type with tissue-specific chain combinations. The encoded procollagen protein occurs commonly as the heterotrimer pro-alpha1(V)-pro-alpha1(V)-pro-alpha2(V). Mutations in this gene are associated with Ehlers-Danlos syndrome, types I and II. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, May 2013]

Product images:

