EMPOWER YOUR RESEARCH

## Product datasheet for RC218130L4

## Collagen IX (COL9A1) (NM_001851) Human Tagged Lenti ORF Clone

## Product data:

## Product Type: Expression Plasmids

Product Name:

## Tag:

Symbol:
Synonyms:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

ORF Nucleotide
Sequence:
Restriction Sites:
Cloning Scheme:

Collagen IX (COL9A1) (NM_001851) Human Tagged Lenti ORF Clone
mGFP
Collagen IX
DJ149L1.1.2; EDM6; MED; STL4
Puromycin
pLenti-C-mGFP-P2A-Puro (PS100093)
Chloramphenicol ( $34 \mathrm{ug} / \mathrm{mL}$ )
The ORF insert of this clone is exactly the same as(RC218130).

Sgfl-Mlul

Cloning sites used for ORF Shuttling:


|  |  |  |  |  |  |  | Kozak Consensus |  |  |  | ORF |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EcoRI |  | BamH I |  | RBS |  |  | Sgf I |  |  |  |  |
| CTATAGGGCGGCCGG $\overline{\text { GAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC }} \overline{\text { C ATG ... ... . . }}$. |  |  |  |  |  |  |  |  |  |  |  |
|  | Mlu 1 |  | Not I |  | Xhol | mGFP Tag |  |  |  |  |  |
| ... .... ... ... ... ... ${ }^{\text {NNN* }}$ | $\overline{\text { ACG }}$ | $\underset{R}{\text { CGT }} \underset{T}{A C G}$ | $\underset{\mathrm{R}}{\mathrm{CGG}}$ | $5 \text { CCG }$ | $\underset{\mathrm{L}}{\mathrm{CTC}} \underset{\mathrm{E}}{\mathrm{GAG}}$ | $\begin{gathered} \text { ATG } \\ \text { M } \end{gathered}$ | $\underset{\mathrm{S}}{\mathrm{AGC}} \underset{\mathrm{G}}{\mathbf{G G G}}$ | $\underset{\mathbf{G}}{\mathrm{GGC}}$ | - | - | - |

----- GGA CTC AGA GIT TGG GTA GGA AGC

* The last codon before the Stop codon of the ORF.

ACCN:
NM_001851
ORF Size:

2763 bp

OTI Disclaimer:

OTI Annotation:

Components:

Reconstitution Method: 1. Centrifuge at $5,000 \times \mathrm{x}$ for 5 min .

RefSeq:
RefSeq Size:
RefSeq ORF:
Locus ID:
UniProt ID:
Cytogenetics:
Protein Families:
MW:
Gene Summary:
2. Carefully open the tube and add 100 ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000 xg ) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$.
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

NM 001851.3
3704 bp
2766 bp
1297
P20849
6q13
Druggable Genome
91.87 kDa

This gene encodes one of the three alpha chains of type IX collagen, which is a minor (5-20\%) collagen component of hyaline cartilage. Type IX collagen is usually found in tissues containing type II collagen, a fibrillar collagen. Studies in knockout mice have shown that synthesis of the alpha 1 chain is essential for assembly of type IX collagen molecules, a heterotrimeric molecule, and that lack of type IX collagen is associated with early onset osteoarthritis. Mutations in this gene are associated with osteoarthritis in humans, with multiple epiphyseal dysplasia, 6, a form of chondrodysplasia, and with Stickler syndrome, a disease characterized by ophthalmic, orofacial, articular, and auditory defects. Two transcript variants that encode different isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]

## Product images:



