

## Product datasheet for RC202275L4

### P4HB (NM\_000918) Human Tagged Lenti ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | P4HB (NM_000918) Human Tagged Lenti ORF Clone                            |
| Tag:                      | mGFP   |
| Symbol:                   | P4HB   |
| Synonyms:                 | CLCRP1; DSI; ERBA2L; GIT; P4Hbeta; PDI; PDIA1; PHDB; PO4DB; PO4HB; PROHB |
| Mammalian Cell Selection: | Puromycin  |
| Vector:                   | pLenti-C-mGFP-P2A-Puro (PS100093)  |
| E. coli Selection:        | Chloramphenicol (34 ug/mL)   |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(RC202275).           |
| Restriction Sites:        | SgfI-MluI  |
| Cloning Scheme:           |  |

Cloning sites used for ORF Shuttling:



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

|           |           |
|-----------|-----------|
| ACCN:     | NM_000918 |
| ORF Size: | 1524 bp   |



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**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** 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).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul 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 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_000918.3](#)

**RefSeq Size:** 2596 bp

**RefSeq ORF:** 1527 bp

**Locus ID:** 5034

**UniProt ID:** [P07237](#)

**Cytogenetics:** 17q25.3

**Domains:** thioered

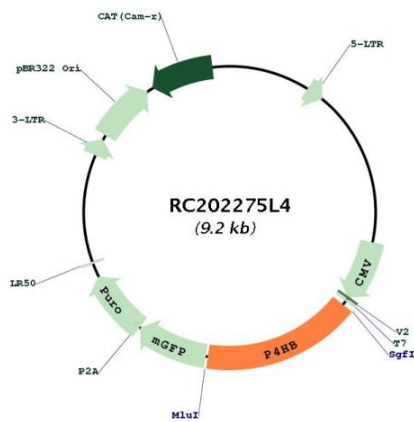
**Protein Families:** Druggable Genome

**MW:** 57.1 kDa

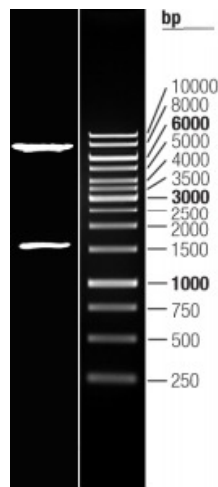
**Gene Summary:**

This gene encodes the beta subunit of prolyl 4-hydroxylase, a highly abundant multifunctional enzyme that belongs to the protein disulfide isomerase family. When present as a tetramer consisting of two alpha and two beta subunits, this enzyme is involved in hydroxylation of prolyl residues in procollagen. This enzyme is also a disulfide isomerase containing two thioredoxin domains that catalyze the formation, breakage and rearrangement of disulfide bonds. Other known functions include its ability to act as a chaperone that inhibits aggregation of misfolded proteins in a concentration-dependent manner, its ability to bind thyroid hormone, its role in both the influx and efflux of S-nitrosothiol-bound nitric oxide, and its function as a subunit of the microsomal triglyceride transfer protein complex. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC202275L4



Double digestion of RC202275L4 using SgfI and MluI