

## Product datasheet for **KN202275**

### P4HB 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:** P4HB  
**Locus ID:** 5034  
**Components:** **KN202275G1**, P4HB gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AAGCAACTTCGCGGAGGCGC  
**KN202275G2**, P4HB gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGCGTCGGCGCGCACCAGGG  
**KN202275D**, 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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GCTCCGGTTC CCAACGATC

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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\\_000918](#)

**UniProt ID:**

[P07237](#)

**Synonyms:**

DSI; ERBA2L; GIT; P4Hbeta; PDI; PDIA1; PHDB; PO4DB; PO4HB; PROHB

**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:

