

## Product datasheet for **KN211163**

### PTPRS 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:** PTPRS  
**Locus ID:** 5802  
**Components:** **KN211163G1**, PTPRS gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTTGTGGTCCTGCTCGTTGG  
**KN211163G2**, PTPRS gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GTGTCTGTGGTTGGTCCCAT  
**KN211163D**, 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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**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\\_002850](#), [NM\\_130853](#), [NM\\_130854](#), [NM\\_130855](#)

**UniProt ID:**

[Q13332](#)

**Synonyms:**

PTPSIGMA; R-PTP-S; R-PTP-sigma

**Summary:**

The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extracellular region, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus represents a receptor-type PTP. The extracellular region of this protein is composed of multiple Ig-like and fibronectin type III-like domains. Studies of the similar gene in mice suggested that this PTP may be involved in cell-cell interaction, primary axonogenesis, and axon guidance during embryogenesis. This PTP has been also implicated in the molecular control of adult nerve repair. Four alternatively spliced transcript variants, which encode distinct proteins, have been reported. [provided by RefSeq, Jul 2008]

Product images:

