

## Product datasheet for KN202161LP

#### OriGene Technologies, Inc.

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### TCPTP (PTPN2) Human Gene Knockout Kit (CRISPR)

#### **Product data:**

**Product Type:** Knockout Kits (CRISPR)

**Format:** 2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control

**Donor DNA:** Luciferase-Puro

Symbol: TCPTP Locus ID: 5771

**Components: KN202161G1**, TCPTP gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN202161G2, TCPTP gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN202161LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

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 001207013, NM 001308287, NM 002828, NM 080422, NM 080423

UniProt ID: P17706

Synonyms: PTN2; PTPT; TC-PTP; TCELLPTP; TCPTP

**Summary:** The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP)

family. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of

cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic

transformation. Epidermal growth factor receptor and the adaptor protein Shc were reported

to be substrates of this PTP, which suggested the roles in growth factor mediated cell signaling. Multiple alternatively spliced transcript variants encoding different isoforms have

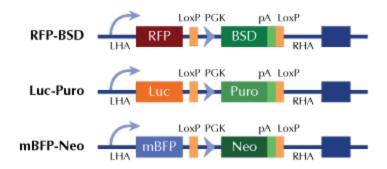
been found. Two highly related but distinctly processed pseudogenes that localize to chromosomes 1 and 13, respectively, have been reported. [provided by RefSeq, May 2011]





# **Product images:**

#### Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter