

Product datasheet for KN214863LP

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

DPP1 (CTSC) 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: DPP1 Locus ID: 1075

Components: KN214863G1, DPP1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN214863G2, DPP1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN214863LPD, 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: <u>NM 001114173, NM 001814, NM 148170</u>

UniProt ID: P53634

Synonyms: CPPI; DPP-I; DPP1; DPPI; HMS; JP; JPD; PALS; PDON1; PLS

Summary: This gene encodes a member of the peptidase C1 family and lysosomal cysteine proteinase

that appears to be a central coordinator for activation of many serine proteinases in cells of the immune system. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate heavy and light

chains that form a disulfide-linked dimer. A portion of the propeptide acts as an

intramolecular chaperone for the folding and stabilization of the mature enzyme. This enzyme requires chloride ions for activity and can degrade glucagon. Defects in the encoded

protein have been shown to be a cause of Papillon-Lefevre syndrome, an autosomal recessive disorder characterized by palmoplantar keratosis and periodontitis. [provided by

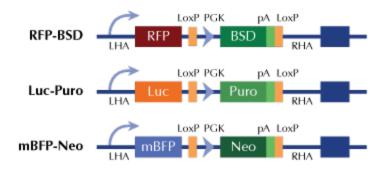
RefSeq, Nov 2015]





Product images:

Donor Vector Edited Chromosome



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