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Product datasheet for KN214863

DPP1 (CTSC) 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: DPP1

Locus ID: 1075

Components: **KN214863G1**, DPP1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCAGCGCACGGCGCCGTCGC
KN214863G2, DPP1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTGCTGCTTCTCTCCGGCGA
KN214863D, 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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GGGGATCATG TAACTCGCCT T

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.

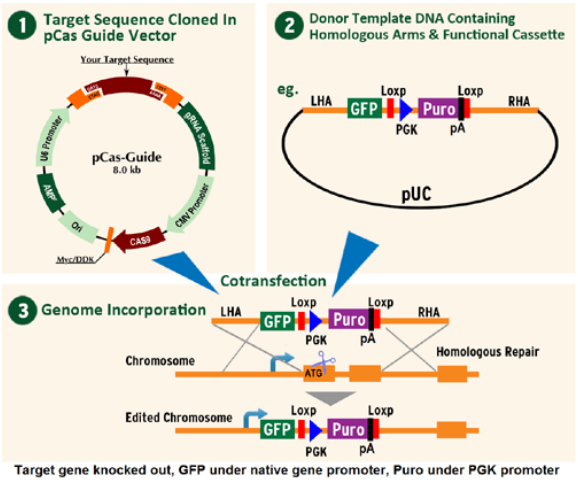
RefSeq: NM_001114173, NM_001814, NM_148170

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:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter