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Product datasheet for RC215614

DPP1 (CTSC) (NM_148170) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DPP1 (CTSC) (NM_148170) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DPP1
Synonyms:	CPPI; DPP-I; DPP1; DPPI; HMS; JP; JPD; PALS; PDON1; PLS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC215614 representing NM_148170
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGTGCTGGGCCCTCCTTGCTGCTCGCCGCCCTCCTGCTGCTTCTCTCCGGCGACGGCGCCGTGCGCT
GCGACACACCTGCCAACTGCACCTATCTTGACCTGCTGGGCACCTGGGTCTTCCAGGTGGGCTCCAGCGG
TTCCCAGCGCGATGTCAACTGCTCGGTTATGGGACCACAAGAAAAAAAAAGTAGTGGTGTACCTTCAGAAG
CTGGATACAGCATATGATGACCTTGGCAATTCTGGCCATTTCACCATCATTTACAACCAAGGCTTTGAGA
TTGTGTTGAATGACTACAAGTGGTTTGCCTTTTTTAAGGATGTCACTGATTTTATCAGTCATTTGTTCAT
GCAGCTGGGAACTGTGGGGATATATGATTTGCCACATCTGAGGAACAAACTGGTTATTAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215614 representing NM_148170
Red=Cloning site Green=Tags(s)

MGAGPSLLLAALLLLLSGDGAVRCDTPANCTYLDLLGTWVFQVGSSGSQRDVNCSVMGPQEKKVVVYLQK
LDTAYDDLGNSGHFTIIYNQGFEIVLNDYKWFAFFKDVTDFISHLFMQLGTVGIYDLPHLRNKLVIK

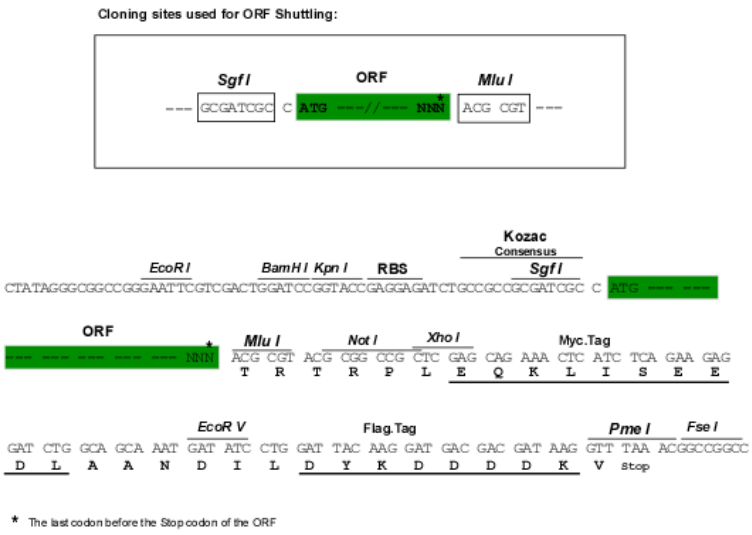
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6480_a09.zip

Restriction Sites: SgfI-MluI

View online »

Cloning Scheme:



ACCN: NM_148170

ORF Size: 411 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_148170.5

RefSeq Size: 6131 bp

RefSeq ORF: 414 bp

Locus ID: 1075

UniProt ID: P53634

Cytogenetics: 11q14.2

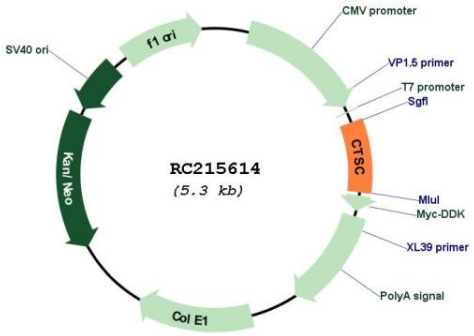
Protein Families: Druggable Genome, Protease

Protein Pathways: Lysosome

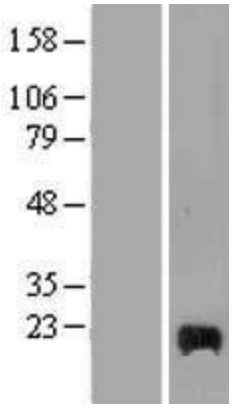
MW: 12.8 kDa

Gene 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:



Circular map for RC215614



Western blot validation of overexpression lysate (Cat# [LY407768]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215614 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).