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Product datasheet for RC200133

PNPO (NM_018129) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PNPO (NM_018129) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PNPO
Synonyms:	HEL-S-302; PDXPO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200133 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACGTGCTGGCTGCGGGGCGTCACGGCGACGTTCGGGCGACCTGCCGAGTGGCCAGGCTACCTCAGTC
ACCTGTGTGGTCGCAGTGCTGCCATGGACCTGGGACCCATGCGCAAGAGTTACCGCGGGGACCGAGAGGC
ATTTGAGGAGACTCATCTGACCTCTCTTGACCCAGTGAAACAGTTTGCTGCCTGGTTTGAGGAGGCTGTT
CAGTGTCCTGACATAGGGGAAGCCAATGCCATGTGTCTGGCTACCTGCACCAGAGATGGAAAACCCTCTG
CTCGCATGTTGCTGCTGAAGGGCTTCGGGAAAGATGGCTTCCGCTTCTTCACTAACTTCGAGAGTCGAAA
AGGAAAAGAGCTGGACTCTAATCCCTTTGCTTCCCTTGTCTTCTACTGGGAGCCACTTAACCGTCAGGTG
CGTGTGGAAGGCCCTGTGAAGAAACTGCCTGAGGAGGAGGCTGAGTGCTACTTCCACTCCCGCCCCAAGA
GCAGCCAGATTGGGGCTGTGGTCAGCCACCAGAGTTCTGTGATCCCTGATCGGGAGTATCTGAGAAAGAA
AAATGAGGAACTGGAACAGCTCTACCAGGATCAAGAGGTGCCCAAGCCAAAATCCTGGGGTGGCTATGTC
CTGTACCCTCAGGTGATGGAGTTCTGGCAAGGTCAAACCAACCGCCTGCATGACCGGATAGTCTTTCGGC
GGGGCCTACCCACAGGAGATTCCCCTTTGGGGCCCATGACCCACCGCGGGGAGGAAGACTGGCTCTATGA
GAGACTTGCACCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC200133 protein sequence
Red=Cloning site Green=Tags(s)

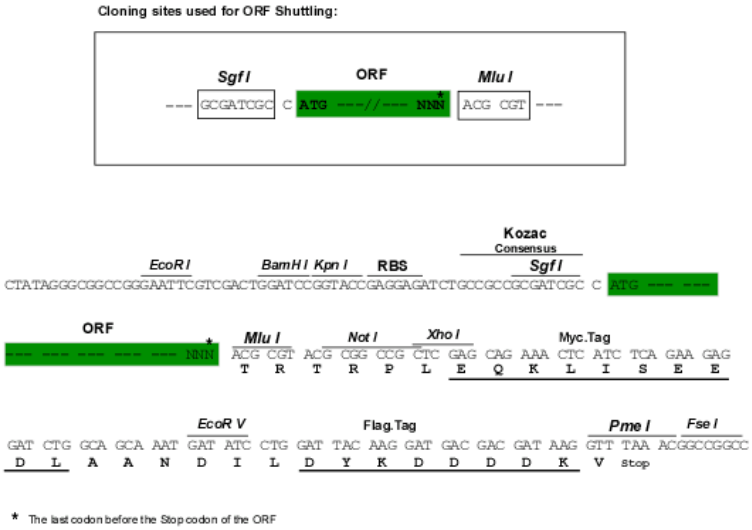
MTCWLRGVTATFGRPAEWPGYLSHLCGRSAAMDLGPMRKSYRGDREAFEETHLTSLDPVKQFAAWFEEAV
QCPDIGEANAMCLATCTRDGKPSARMLLLKGFGKDGFRFFTNFESRKGKELDSNPFASLVFYWEPLNRQV
RVEGPVKKLPEEEAECYFHSRPKSSQIGAVVSHQSSVIPDREYLRKKNEELEQLYQDQEVPKPKSWGGYV
LYPQVMEFWQGQTNRLHDRIVFRRGLPTGDSPLGPMTHRGEEDWLYERLAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6381_b08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018129

ORF Size: 783 bp

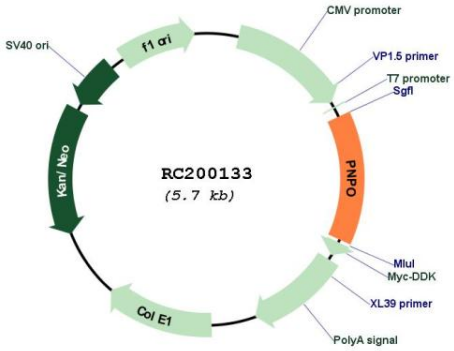
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

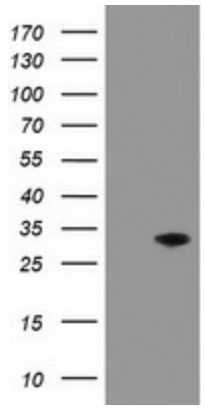
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_018129.4
RefSeq Size:	3482 bp
RefSeq ORF:	786 bp
Locus ID:	55163
UniProt ID:	Q9NVS9
Cytogenetics:	17q21.32
Domains:	Pyridox_oxidase
Protein Pathways:	Metabolic pathways, Vitamin B6 metabolism
MW:	30 kDa
Gene Summary:	The enzyme encoded by this gene catalyzes the terminal, rate-limiting step in the synthesis of pyridoxal 5'-phosphate, also known as vitamin B6. Vitamin B6 is a required co-factor for enzymes involved in both homocysteine metabolism and synthesis of neurotransmitters such as catecholamine. Mutations in this gene result in pyridoxamine 5'-phosphate oxidase (PNPO) deficiency, a form of neonatal epileptic encephalopathy. [provided by RefSeq, Oct 2008]

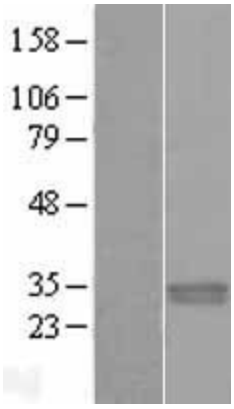
Product images:



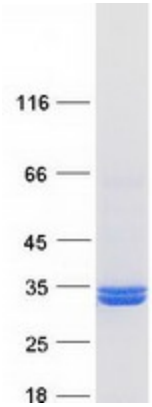
Circular map for RC200133



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PNPO (Cat# RC200133, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PNPO(Cat# [TA503506]). Positive lysates [LY413282] (100ug) and [LC413282] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY413282]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200133 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PNPO protein (Cat# [TP300133]). The protein was produced from HEK293T cells transfected with PNPO cDNA clone (Cat# RC200133) using MegaTran 2.0 (Cat# [TT210002]).