

Product datasheet for RC201274

Sarcosine Oxidase (PIPOX) (NM_016518) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sarcosine Oxidase (PIPOX) (NM_016518) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sarcosine Oxidase
Synonyms:	LPIPOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201274 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCTCAGAAAGATCTCTGGGACGCCATTGTGATTGGGGCGGGATCCAGGGCTGCTTCACTGCAT
ACCACCTGGCCAAACACAGGAAGAGGATCCTCCTGCTGGAGCAGTTCTTTCTACCACACTCCCGAGGAAG
CTCCCATGGACAAAGCCGGATAATCCGAAAGCGTACCTGGAAGACTTTTACACCCGGATGATGCATGAG
TGCTATCAGATATGGGCCAGCTGGAGCACGAGGCTGGAACCAATTGCACAGGCAGACTGGATTACTGC
TGCTGGGAATGAAAGAGAATCAAGAATTAAGACAATCCAGGCCAATCTGTGCGAGGCAGAGGGTAGAACA
CCAGTGTCTTTTCACTGAGGAACTGAAGCAACGTTTCCCAAATATTCGGTTGCCAGGGGAGAAGTGGGG
CTCTTGACAATTCGGAGGAGTTATCTATGCATATAAGGCCCTCAGAGCCCTGCAGGATGCAATTCGAC
AGCTAGGAGGCATAGTGCCTGACGGAGAGAAGGTGGTGGAGATAAACCCAGGGCTACTGGTCACGGTGAA
AACCACCTCCAGGAGCTACCAAGCTAAGAGCTTGGTCAACACAGCAGGTCCTTGGACCAACCAGCTCCTC
CGTCCCTGGGCATTGAGATGCCTCTCCAGACCCTGCGGATCAACGTGTGTTACTGGCGAGAGATGGTTC
CTGGGAGCTATGGTGTGTCCAGGCCTTCCGTGCTTCTGTGGCTGGGCTTGTGTCCCAACACATCTA
CGGACTGCCACAGGAGAGTACCCAGGGCTGATGAAGGTCAGCTATCACCACGGCAACCACGCAGACCCT
GAGGAGCGGACTGCCCCACAGCACGCACAGACATCGGAGACGTCCAGATCCTGAGCAGCTTTGTCCAGAG
ATCACTTACCTGATCTGAAGCCCGAGCCTGCTGTCATTGAGAGCTGCATGTACACGAATACCCCTGATGA
GCAGTTTATTCTCGATCGCCACCCAAAGTATGACAACATTGTCATTGGTGTGATTCTCTGGGCACGGG
TTCAAGCTGGCCCTGTGGTGGGAAGATCCTGTATGAATTAAGCATGAAATTAACACCATCTTATGACT
TGGCACCTTTTCGAATCAGCCGTTTCCCAAGCCTGGGCAAAGCCACCTT

ACGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201274 protein sequence
Red=Cloning site Green=Tags(s)

MAAQKDLWDAIVIGAGIQGCFAYHLAKHRKRILLLEQFFLPHSRGSSHGQSRIIRKAYLEDFYTRMMHE
 CYQIWAQLEHEAGTQLHRQTGLLLLGMKENQELKTIQANLSRQRVEHQCLSSEELKQRFNIRLPRGEVG
 LLDNSGGVIYAYKALRALQDAIRQLGGIVRDGEKVVEINPGLLVTVKTTSRSYQAKSLVITAGPWTNQLL
 RPLGIEMPLQTLRINVCYWREMPGSYGVSAFPCFLWLGLCPHHIYGLPTGEYPGLMKVSYHHGNHADP
 EERDCPTARTDIGDVQILSSFVRDHLPLDKPEPAVIESCMYTNTPDEQFILDRHPKYDNIIVIGAGFSGHG
 FKLAPVVGKILYELSMKLTPSYDLAPFRISRFPSTLGAHL

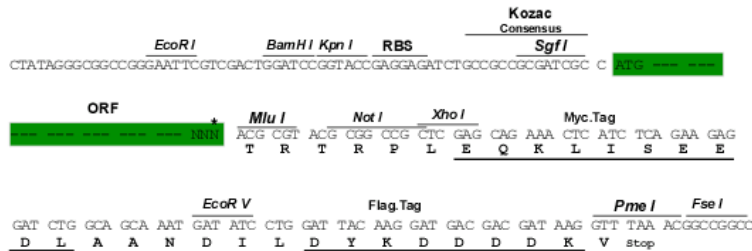
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6409_d03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_016518

ORF Size: 1170 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_016518.3](#)

RefSeq Size: 2412 bp

RefSeq ORF: 1173 bp

Locus ID: 51268

UniProt ID: [Q9P0Z9](#)

Cytogenetics: 17q11.2

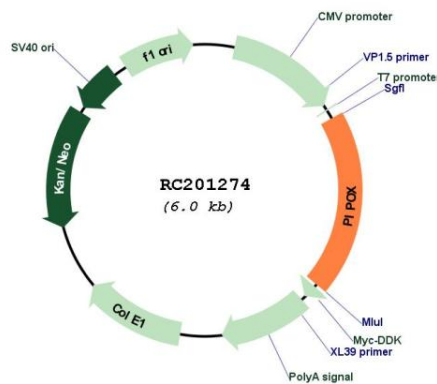
Protein Families: Transmembrane

Protein Pathways: Glycine, serine and threonine metabolism, Lysine degradation, Metabolic pathways

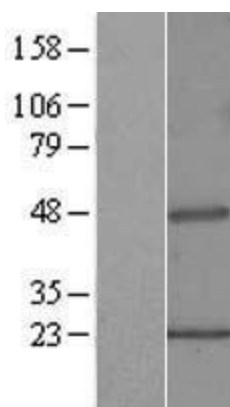
MW: 44.1 kDa

Gene Summary: Metabolizes sarcosine, L-pipecolic acid and L-proline.[UniProtKB/Swiss-Prot Function]

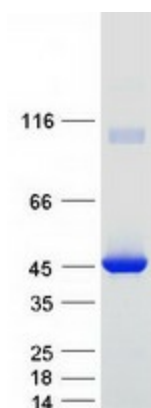
Product images:



Circular map for RC201274



Western blot validation of overexpression lysate (Cat# [LY413952]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201274 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PIPOX protein (Cat# [TP301274]). The protein was produced from HEK293T cells transfected with PIPOX cDNA clone (Cat# RC201274) using MegaTran 2.0 (Cat# [TT210002]).