

Product datasheet for **RC228509**

Lactoperoxidase (LPO) (NM_001160102) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lactoperoxidase (LPO) (NM_001160102) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lactoperoxidase
Synonyms:	SPO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC228509 representing NM_001160102
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGGTCTTCTCCATCTCCCAGCCCTCTGGCTTCCCTCATCTTGCTTCAGGCTGCAGCATCTACCA
 CAAGAGATCCCAGCCTGGACTTGACTTCACTGTCTCTGGAGGTGGCTGTGGTGCTCCTGCTCCCGTGGT
 GAGATGCGACCCGTGCAGCCCTTACCGCACCATTACGGGAGACTGCAATAACAGGAGGAAGCCTGCGCTG
 GCGCGCCCAACAGGGCTCTGGCGCGTGGCTGCCCGGGAGTACGAGGACGGGCTCTCCCTGCCCTTCG
 GCTGGACGCCGGGAAGACGCGCAACGGCTTCCCTCTCCCGTGGCCGGGAGGTATCTAACAGATTGT
 TGGCTATCTGAATGAGGAGGGTGTCTGGACAAAACAGTCCCTGCTTTCATGCAGTGGGGTCAAGT
 GTGGATCATGACCTGGACTTTGCCCTGACACCGAGCTGGGGAGTAGCGAGTACTCAAAGCCCAGTGTG
 ATGAGTACTGTATCCAGGGAGACAACCTGCTTCCCATCATGTTCCACCCAATGACCCCAAGCGGGGAC
 TCAAGGGAAATGCATGCCTTTCTCCGAGCTGGGTTTCGCTGCCCACTCCACCTACAAGTCCCTGGCC
 CGAGAGCAGATCAACGCTCTGACCTCCTTCTGGATGCCAGCTTTGTGTACAGCTCCGAGCAAGCCTGG
 CCAGCCGCTCCGCAACCTCAGCAGCCCTGGGCTCATGGCTGTCAACCAGGAGGTCTCAGACCATGG
 ACTACCCTACCTGCCCTATGACAGCAAGAAGCCAAAGCCCTGTGAGTTTCAACACCACTGCCCGTGTG
 CCCTGCTTCTGGCAGGAGATTCTGAGCCTCAGAGCATATTCTGCTGGCCACATCCCACACCTCTTTC
 TCCGCGAGCATAACCGGCTGGCCAGAGAATAAGAGACTCAACCTCAGTGGGATGGAGAGAAGCTCTA
 CCAGGAAGCCCGAAAATCCTGGGAGCCTTCGTGCAGATTACACCTTATAGGACTACCTACCCATTTTG
 CTAGGTGACCACATGCAGAAGTGGATACCCCATATCAAGGCTACAGTGAATCTGTGGATCCCAGAATTT
 CCAATGTCTTACCTTCGCTTCCGCTTTGGCCACTTGGAGGTCCCTCTAGTATGTTCCGCTGGATGA
 GAATTATCAGCCATGGGGCCAGAACCAGAACTCCCCCTCCACACCTCTTCTTCAACACTTGGAGGATG
 GTCAAAGATGGTGAATTGATCCTCTGGTGCAGGGCTGTGGCCAAGAAATCCAAGCTGATGAAACAGA
 ATAAAATGATGACTGGAGAGCTGCGCAACAAGCTTTTCCAGCCTCACAGGATCCATGGCTTTGACCT
 GGCTGCCATCAACACACAGCGTTGCCGGGACCATGGGCAACCTGGGTACAATTCTGGAGAGCCTTCTGT
 GACCTCTCACAGCCGACAGACTAGAGGAGTTGAACACAGTGTGAAGAGCAAGATGCTGGCCAAGAAGT
 TACTGGTCTCTACGGACCCCTGACAACATCGACATCTGGATAGGGGCCATTGCTGAGCCGCTGGTGA
 AAGGGTTCGGTGGGAAAACCTGGGGTCTTACGAACGAGCAGAAGGACTCTACAGAAAATGTCCTTCT
 CACGCCTTGTCTGTGACAACCCCGCATACCAAGGTCCCACGGGACCCATTCTGGGCAACAGCTACCC
 CTATGACTTCGTGGATTGCTCAGCCATCGACAAGCTGGACCTGTACCCTGGGCCTCAGTGAAGAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC228509 representing NM_001160102
 Red=Cloning site Green=Tags(s)

MRVLLHLPALLASLILLQAAASTTRDPSLDLTSLSLEVCGGAPAPVVRCDPCSPYRITGDCNRRKPAL
 GAANRALARWLP AEYEDGLSLPFGWTPGKTRNGFPLPLAREVSNKIVGYLNEEGLVDQNRSLFMQWQI
 VDHDLDFAFDTELGSSEYSKAQCDEYCIQGDNCFPIFPNDPKAGTQGKCMPPFRAGFVCPPTPYKSLA
 REQINALTSFLDASFVYSEPSLASRLRNLSSPLGLMAVNQEVSDHGLPYLPYDSKPPSPCEFINTTARV
 PCFLAGDSRASEHILLATSHTLFLREHNRLARELKRNLNPQWDGEKLYQEARKILGAFVQIITFRDYLPI
 LGDHMQWIPPYQGYSESVDPRI SNVTF AF RF GHLEVPSSMFRLDENYQPWGPEPELPLHTLFFNTWRM
 VKDGGIDPLVRGLLAKKSKLMQNKMMTGELRNKLFQPTHRIHGFDLAAINTQRCRDHGQPGYNSWRAFC
 DLSQPQTLLEELNTVLKSKMLAKKLLGLYTPDNIDIWIGAI AEPLVERGRVGPLLACLLGKQFQQIRDGD
 RFWVENPGVFTNEQKDSLQKMSFSRLVCDNTRITKVPDPFWANSYPYDFVDCSAIDKLDLSPWASVKN

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8070_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001160102

ORF Size: 1887 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_001160102.1](#), [NP_001153574.1](#)

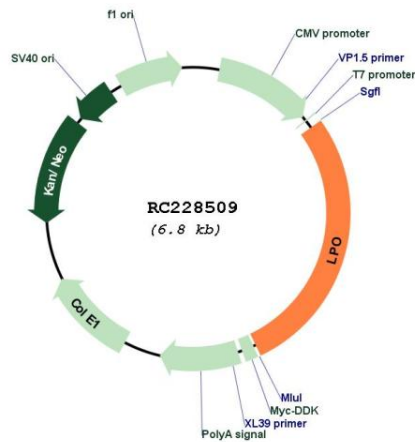
RefSeq ORF: 1890 bp

Locus ID: 4025

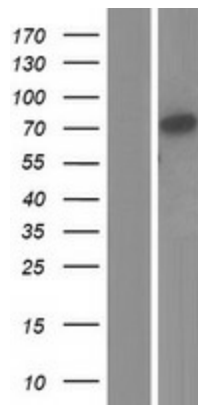
UniProt ID: [P22079](#)
Cytogenetics: 17q22
Protein Families: Druggable Genome, Secreted Protein
MW: 70.8 kDa

Gene Summary: This gene encodes a member of the peroxidase family of proteins. The encoded preproprotein is proteolytically processed to generate the mature enzyme. Following its secretion from salivary, mammary, and other mucosal glands, this enzyme catalyzes the generation of the antimicrobial substance hypothiocyanous acid. This gene is present in a gene cluster on chromosome 17. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RC228509



Western blot validation of overexpression lysate (Cat# [LY431537]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228509 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).