

Product datasheet for **RG228509**

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:	TurboGFP
Symbol:	Lactoperoxidase
Synonyms:	SPO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG228509 representing NM_001160102
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGGTCTTCTCCATCTCCCAGCCCTCTGGCTTCCCTCATCTTGCTTCAGGCTGCAGCATCTACCA
 CAAGAGATCCCAGCCTGGACTTGACTTCACTGTCTCTGGAGGTGGCTGTGGTGCTCCTGCTCCCGTGGT
 GAGATGCGACCCGTGCAGCCCTTACCGCACCATTACGGGAGACTGCAATAACAGGAGGAAGCCTGCGCTG
 GGC CGCGCAACAGGGCTCTGGCGCGTGGCTGCCCGGGAGTACGAGGACGGGCTCTCCCTGCCCTTCG
 GCTGGACGCCGGGAAGACGCGCAACGGCTTCCCTCTCCCGTGGCCGGGAGGTATCTAACAAGATTGT
 TGGCTATCTGAATGAGGAGGGTGTCTGGACAAAACAGGTCCCTGCTTTCATGCAGTGGGGTCAAGT
 GTGGATCATGACCTGGACTTTGCCCTGACACCGAGCTGGGGAGTAGCGAGTACTCAAAGCCCAGTGTG
 ATGAGTACTGTATCCAGGGAGACAACCTGCTTCCCATCATGTTCCACCCAATGACCCCAAGCGGGGAC
 TCAAGGGAATGCATGCCTTTCTCCGAGCTGGGTTTCGCTGCCCACTCCACCTACAAGTCCCTGGCC
 CGAGAGCAGATCAACGCTCTGACCTCCTTCTGGATGCCAGCTTGTGTACAGCTCCGAGCAAGCCTGG
 CCAGCCGCTCCGCAACCTCAGCAGCCCTGGGCCTCATGGCTGTCAACCAGGAGGTCTCAGACCATGG
 ACTACCCTACCTGCCCTATGACAGCAAGAAGCCAAGCCCTGTGAGTTTCAACACCACTGCCCGTGTG
 CCCTGCTTCTGGCAGGAGATTCTCGAGCCTCAGAGCATATTCTGCTGGCCACATCCCACACCTCTTTC
 TCCGCGAGCATAACCGGCTGGCCAGAGAATAAGAGACTCAACCTCAGTGGGATGGAGAGAAGCTCTA
 CCAGGAAGCCCGAAAACTCTGGGAGCCTTCGTGCAGATTACACCTTTAGGGACTACCTACCCATTTTG
 CTAGGTGACCACATGCAGAAGTGGATACCCCATATCAAGGCTACAGTGAATCTGTGGATCCCAGAATTT
 CCAATGTCTTACCTTCGCCTTCCGCTTTGGCCACTTGGAGGTCCCTCTAGTATGTTCCGCTGGATGA
 GAATTATCAGCCATGGGGCCAGAACCAGAACTCCCCCTCCACACCTCTTCTTCAACACTTGGAGGATG
 GTCAAAGATGGTGAATTGATCCTCTGGTGCGGGGCTGTGGCCAAGAAATCCAAGCTGATGAAACAGA
 ATAAAATGATGACTGGAGAGCTGCGCAACAAGCTTTTCCAGCCTCACAGGATCCATGGCTTTGACCT
 GGCTGCCATCAACACACAGCGTTGCCGGGACCATGGGCAACCTGGGTACAATTCTGGAGAGCCTTCTGT
 GACCTCTCACAGCCGACAGACTAGAGGAGTTGAACACAGTGTGAAGAGCAAGATGCTGGCCAAGAAGT
 TACTGGTCTCTACGGACCCCTGACAACATCGACATCTGGATAGGGGCCATTGCTGAGCCGCTGGTGA
 AAGGGTTCGGTGGGAAACCTGGGGTCTTACGAACGAGCAGAAGGACTCTACAGAAAATGTCCTTCT
 CACGCCTTGTCTGTGACAACCCCGCATACCAAGGTCCCACGGGACCCATTCTGGGCAACAGCTACCC
 CTATGACTTCGTGGATTGCTCAGCCATCGACAAGCTGGACCTGTACCCTGGGCCTCAGTGAAGAAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG228509 representing NM_001160102
 Red=Cloning site Green=Tags(s)

MRVLLHLPALLASLILLQAAASTTRDPSLDLTSLSLEVCGGAPAPVVRCDPCSPYRTITGDCNNRRKPAL
 GAANRALARWLP AEYEDGLSLPFGWTPGKTRNGFPLPLAREVSNKIVGYLNEEGVLDQNRSLLFMQWQI
 VDHDLDFAFDTELGSEYSKAQCDEYCIQGDNCFPI MFPPNDPKAGTQGKCMPPFRAGFVCPPTPYKSLA
 REQINALTSFLDASFVYSSEPLASRLRNLSSPLGLMAVNQEVSDHGLPYLPYDSKKPSPCEFINTTARV
 PCFLAGDSRASEHILLATSHTLFLREHNRLARELKRNPQWDGEKLYQEARKILGAFVQIITFRDYLPI
 LGDHMQKWIPPYQGYSESVDPRI SNVTF AFRFHLEVPSSMFRLDENYQPWGPEPELPLHTLFFNTWRM
 VKDGGIDPLVRLLAKKSKLMQNKMMTGELRNKLFQPTHRIHGFDLAAINTQRCDRHGQPGYNSWRAFC
 DLSQPQTL EELNTVLKSKMLAKLLGLYTPDNIDIWIGAI AEPLVERGRVGP LLA CLLGKQFQQIRDGD
 RFWWENPGVFTNEQKDSLQKMSFSRLVCDNTRITKVPRDPFWANSYPYDFVDCSAIDKLDLSPWASVKN

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-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 Size: 2744 bp

RefSeq ORF: 1890 bp

Locus ID: 4025

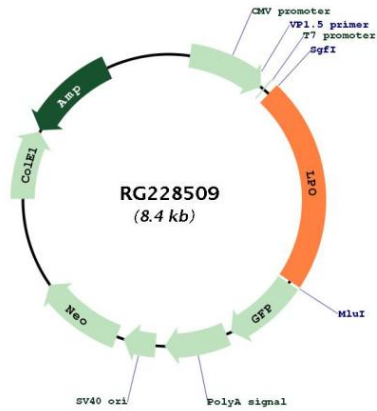
UniProt ID: [P22079](#)

Cytogenetics: 17q22

Protein Families: Druggable Genome, Secreted Protein

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 RG228509