

Product datasheet for RC207428

Glutathione Peroxidase 7 (GPX7) (NM_015696) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Glutathione Peroxidase 7 (GPX7) (NM_015696) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Glutathione Peroxidase 7
Synonyms: CL683; GPx-7; GPX6; GSHPx-7; NPGPx
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC207428 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGTGGCGGCGACGGTGGCAGCGGCGTGGCTGCTCCTGTGGGCTGCGGCCTGCGCGCAGCAGGAGCAGG
ACTTCTACGACTCAAGGCGGTCAACATCCGGGGCAAACCTGGTGTGCTGGAGAAGTACCGCGGATCGGT
GTCCCTGGTGGTGAATGTGGCCAGCGAGTGGGCTTACAGACCAGCACTACCGAGCCCTGCAGCAGCTG
CAGCGAGACCTGGGCCCCACCCTTCAACGTGCTCGCCTTCCCCTGCAACCAGTTGGCCAACAGGAGC
CTGACAGCAACAAGGAGATTGAGAGCTTGCCTCCGCGCACCTACAGTGTCTCATTCCCCATGTTTAGCAA
GATTGCAGTCACCGGTACTGGTGCCTCCTGCCTTCAAGTACCTGGCCAGACTTCTGGGAAGGAGCCC
ACCTGGAACCTTCTGGAAGTACCTAGTAGCCCCAGATGAAAGGTGGTAGGGCTTGGGACCAACTGTGT
CAGTGGAGGAGGTGAGCCCCAGATCACAGCGCTCGTGAGGAAGTCTATCCTACTGAAGCGAGAAGACTT
A

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207428 protein sequence
 Red=Cloning site Green=Tags(s)

MVAATVAAWLLLWAAACAQQEQDFYDFKAVNIRGKLVLSLEKYRGSVSLVNVASECGFTDQHYRALQQL
QRDLGPHHFNVLAFCNQFGQEPDSNKEIESFARRTYSVSFPMFSKIAVTGTGAHPAFKYLAQTSKKEP
TWNFWKYL VAPDGKVVGAWDPTVSVVEVRPQITALVRKLI LLKREDL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/mk6019_a10.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_015696

ORF Size: 561 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_015696.5](#)

RefSeq Size: 1246 bp

RefSeq ORF: 564 bp

Locus ID: 2882

UniProt ID: [Q96SL4](#)

Cytogenetics: 1p32.3

Domains: GSHPx

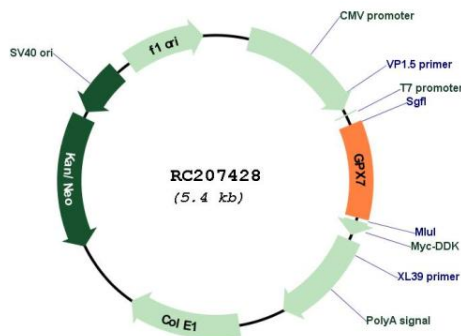
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Arachidonic acid metabolism, Glutathione metabolism

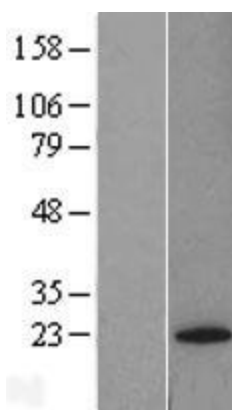
MW: 21 kDa

Gene Summary: It protects esophageal epithelia from hydrogen peroxide-induced oxidative stress. It suppresses acidic bile acid-induced reactive oxygen species (ROS) and protects against oxidative DNA damage and double-strand breaks.[UniProtKB/Swiss-Prot Function]

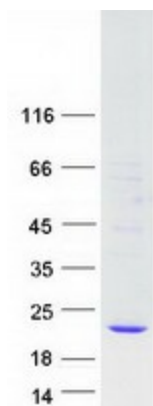
Product images:



Circular map for RC207428



Western blot validation of overexpression lysate (Cat# [LY414390]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207428 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GPX7 protein (Cat# [TP307428]). The protein was produced from HEK293T cells transfected with GPX7 cDNA clone (Cat# RC207428) using MegaTran 2.0 (Cat# [TT210002]).