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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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGGCGGCGACGGTGGCAGCGGCGTGGCTGCTCCTGTGGGCTGCGGCCTGCGCGCAGCAGGAGCAGG
ACTTCTACGACTTCAAGGCGGTCAACATCCGGGGCAAACTGGTGTCGCTGGAGAAGTACCGCGGATCGGT
GTCCCTGGTGGTGAATGTGGCCAGCGAGTGCGGCTTCACAGACCAGCACTACCGAGCCCTGCAGCAGCTG
CAGCGAGACCTGGGCCCCCACCACTTCAACGTGCTCGCCTTCCCCTGCAACCAGTTTGGCCAACAGGAGC
CTGACAGCAACAAGGAGATTGAGAGCTTTGCCCGCCGCACCTACAGTGTCTCATTCCCCATGTTTAGCAA
GATTGCAGTCACCGGTACTGGTGCCCATCCTGCCTTCAAGTACCTGGCCCAGACTTCTGGGAAGGAGCCC
ACCTGGAACTTCTGGAAGTACCTAGTAGCCCCAGATGGAAAGGTGGTAGGGGCTTGGGACCCAACTGTGT
CAGTGGAGGAGGTCAGACCCCAGATCACAGCGCTCGTGAGGAAGCTCATCCTACTGAAGCGAGAAGACTT
A

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

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

MVAATVAAAWLLLWAAACAQQEQDFYDFKAVNIRGKLVSLEKYRGSVSLVVNVASECGFTDQHYRALQQL
QRDLGPHHFNVLAFPCNQFGQQEPDSNKEIESFARRTYSVSFPMFSKIAVTGTGAHPAFKYLAQTSGKEP
TWNFWKYLVAPDGKVVGAWDPTVSVEEVRPQITALVRKLILLKREDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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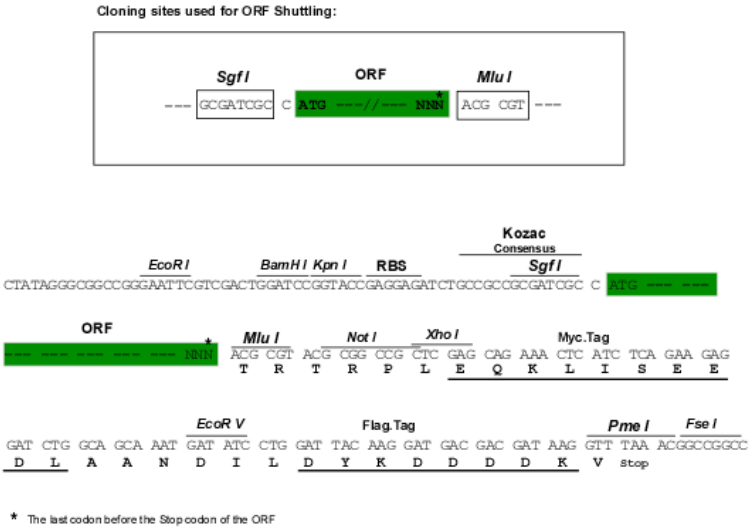
Chromatograms: https://cdn.origene.com/chromatograms/mk6019_a10.zip

Restriction Sites: SgfI-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).

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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_015696.5

RefSeq Size: 1246 bp

RefSeq ORF: 564 bp

Locus ID: 2882

UniProt ID: Q96SL4

Cytogenetics: 1p32.3

Domains: GSHPx

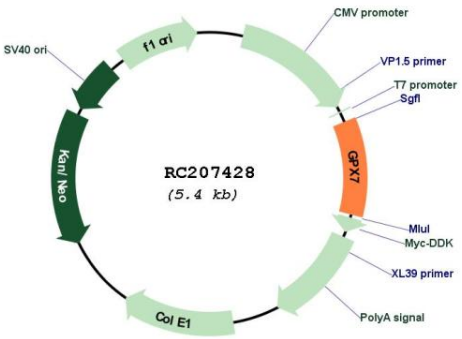
Protein Families: Druggable Genome, Secreted Protein

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 oxigen species (ROS) and protects against oxidative DNA damage and double-strand breaks.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC207428

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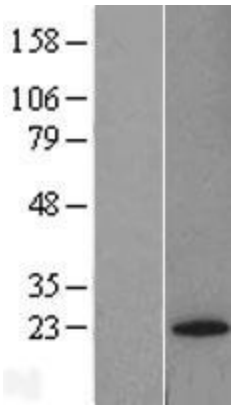
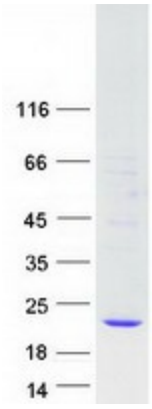


Western blot validation of overexpression lysate (Cat# [LY414390]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207428 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



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]).

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