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Product datasheet for RC231233

Glutathione Reductase (GSR) (NM_001195104) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glutathione Reductase (GSR) (NM_001195104) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Glutathione Reductase
Synonyms:	GR; GSRD; HEL-75; HEL-S-122m
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC231233 representing NM_001195104
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCCTGCTGCCCCGAGCCCTGAGCGCCGGCGCGGGACCGAGCTGGCGGCGGGCGGCGCGCGCCTTCC
GAGGCTTCCTGCTGCTTCTGCCCGAGCCCGCGGCCCTCACGCGCGCCCTCTCCCGTGCCATGGCCTGCAG
GCAGGAGCCGCAGCCGCAGGGCCCGCCGCCCGCTGCTGGCGCCGTGGCCTCCTATGACTACCTGGTGATC
GGGGGCGGCTCGGGCGGGCTGGCCAGCGCGCGCAGGGCGGCCGAGCTGGGTGCCAGGGCCGCCGTGGTGG
AGAGCCACAAGCTGGGTGGCACTTGCGTGAATGTTGGATGTGTACCCAAAAAGGTAATGTGGAACACAGC
TGTCCACTCTGAATTCATGCATGATCATGCTGATTATGGCTTTCCAAGTTGTGAGGGTAAATTCAATTGG
CGTGTTATTAAGGAAAAGCGGGATGCCTATGTGAGCCGCCTGAATGCCATCTATCAAAACAATCTCACCA
AGTCCCATATAGAAATCATCCGTGGCCATGCAGCCTTCACGAGTGATCCCAAGCCCACAATAGAGGTCAG
TGGGAAAAAGTACACCGCCCCACACATCCTGATCGCCACAGGTGGTATGCCCTCCACCCCTCATGAGAGC
CAGATCCCCGGTGCCAGCTTAGGAATAACCAGCGATGGATTTTTTCAGCTGGAAGAATTGCCCGGCCGCA
GCGTCATTGTTGGTGCAGGTTACATTGCTGTGGAGATGGCAGGGATCCTGTCAGCCCTGGGTTCTAAGAC
ATCACTGATGATACGGCATGATAAGGGGATTCAAACCGATGACAAGGGTCATATCATCGTAGACGAATTC
CAGAATACCAACGTCAAAGGCATCTATGCAGTTGGGGATGTATGTGGAAAAGCTCTTCTTACTCCAGTTG
CAATAGCTGCTGGCCGAAAACTTGCCCATCGACTTTTTGAATATAAGGAAGATTCCAAATTAGATTATAA
CAACATCCCAACTGTGGTCTTCAGCCACCCCCCTATTGGGACAGTGGGACTCACGGAAGATGAAGCCATT
CATAAATATGGAATAGAAAATGTGAAGACCTATTCAACGAGCTTTACCCCGATGTATCACGCAGTTACCA
AAAGGAAAACAAAATGTGTGATGAAAATGGTCTGTGCTAACAAGGAAGAAAAGGTGGTTGGGATCCATAT
GCAGGGACTTGGGTGTGATGAAATGCTGCAGGGTTTTGCTGTTGCAGTGAAGATGGGAGCAACGAAGGCA
GACTTTGACAACACAGTCGCCATTCACCCTACCTCTTCAGAAGAGCTGGTCACACTTCGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC231233 representing NM_001195104
Red=Cloning site Green=Tags(s)

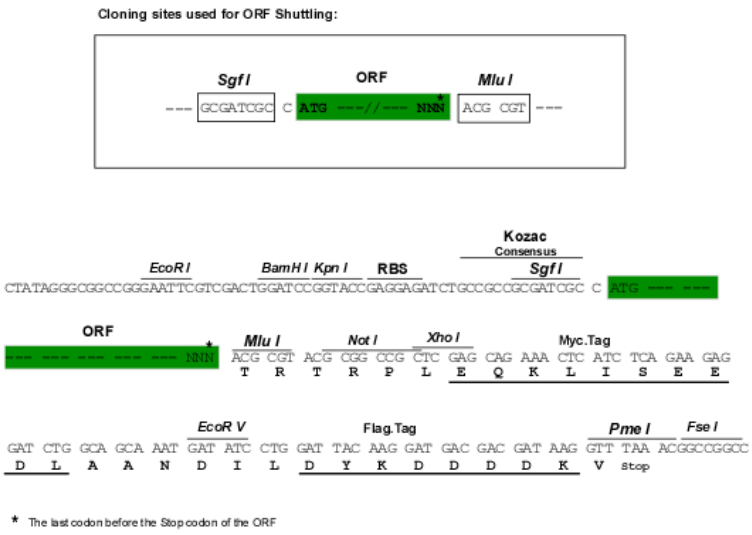
MALLPRALSAGAGPSWRRAARAFRGFLLLLPEPAALTRALSRAMACRQEPQPQGPPPAAGAVASYDYLVI
GGGSGGLASARRAAELGARAAVVESHKLGGTCVNVGCVPKKVMWNTAVHSEFMHDHADYGFPSCEGKFNW
RVIKEKRDAYVSRLNAIYQNNLTKSHIEIIRGHAAFTSDPKPTIEVSGKKYTAPHILIATGGMPSTPHES
QIPGASLGITSDGFFQLEELPGRSVIVGAGYIAVEMAGILSALGSKTSLMIRHDKGIQTDDKGHIIVDEF
QNTNVKGIYAVGDVCGKALLTPVAIAAGRKLAHRLFEYKEDSKLDYNNIPTVVFSHPPIGTVGLTEDEAI
HKYGIENVKTYSTSFTPMYHAVTKRKTKCVMKMVCANKEEKVVGIHMQGLGCDEMLQGFAVAVKMGATKA
DFDNTVAIHPTSSEELVTLR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8060_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001195104

ORF Size: 1320 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_001195104.2

RefSeq ORF: 1323 bp

Locus ID: 2936

UniProt ID: P00390

Cytogenetics: 8p12

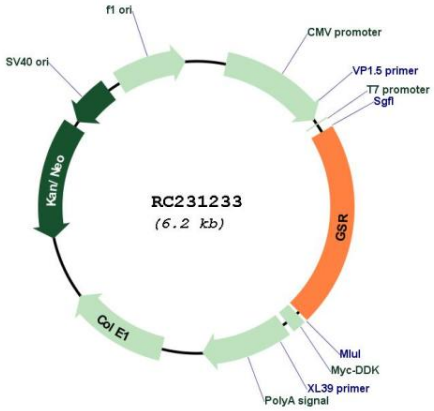
Protein Families: Druggable Genome

Protein Pathways: Glutathione metabolism

MW: 47.7 kDa

Gene Summary: This gene encodes a member of the class-I pyridine nucleotide-disulfide oxidoreductase family. This enzyme is a homodimeric flavoprotein. It is a central enzyme of cellular antioxidant defense, and reduces oxidized glutathione disulfide (GSSG) to the sulfhydryl form GSH, which is an important cellular antioxidant. Rare mutations in this gene result in hereditary glutathione reductase deficiency. Multiple alternatively spliced transcript variants encoding different isoforms have been found. [provided by RefSeq, Aug 2010]

Product images:



Circular map for RC231233