

Product datasheet for **RG214178**

ORP150 (HYOU1) (NM_006389) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ORP150 (HYOU1) (NM_006389) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HYOU1
Synonyms:	GRP-170; Grp170; HSP12A; IMD59; ORP-150; ORP150
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG214178 representing NM_006389
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGACAAAGTTAGGAGGCAGAGGCCGAGGAGCGAGTCTGTTGGGCCTTGGTGGCTGTGCTCTTGG
 CAGACCTGTTGGCACTGAGTGATACACTGGCAGTGATGTCTGTGGACCTGGGCAGTGAGTCCATGAAGGT
 GGCCATTGTCAAACCTGGAGTGCCCATGAAAATTGTCTTGAATAAGGAATCTCGGAGGAAAAACCCGGTG
 ATCGTGACCCTGAAAGAAAATGAAAGATTCTTTGGAGACAGTGCAGCAAGCATGGCGATTAAGAATCCAA
 AGGCTACGCTACGTTACTTCCAGCACCTCTGGGGAAGCAGGCAGATAACCCCATGTAGCTCTTTACCA
 GGCCCGCTTCCCGGAGCACGAGCTGACTTTCGACCACAGAGGCAGACTGTGCACCTTTCAGATCAGCTCG
 CAGCTGCAGTTCTCACCTGAGGAAGTGTGGGCATGGTCTCAATTATTCTCGTTCTCTAGCTGAAGATT
 TTGCAGAGCAGCCATCAAGGATGCAGTGATCACCGTCCAGTCTTCTTCAACCAGGCCGAGCGCCGAGC
 TGTGCTGCAGGCTGCTCGTATGGCTGGCCTCAAAGTGCTGCAGCTCATCAATGACAACACCGCCACTGCC
 CTCAGCTATGGTGTCTTCCGCCGAAAGATATTAAACCACTGCCAGAATATCATGTTCTATGACATGG
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 GAACGCCCTGGCTGGGCTTTTCAATGAGCAGCGCAAGGGTCAGAGAGCAAAGGATGTGCGGGAGAACC
 GTGCCATGGCCAAGCTGCTGCGTGAGGCTAATCGGCTCAAACCGTCTCAGTCCCAACGCTGACCACAT
 GGCACAGATTGAAGCCCTGATGGATGATGTGGACTTCAAGGCAAAAGTGAAGTGTGGAATTTGAGGAG
 TTGTGTGCAGACTTGTGAGCGGGTGCCTGGGCTGTACAGCAGGCCCTCCAGAGTCCGGAATGAGTC
 TGGATGAGATTGAGCAGGTGATCTGGTGGTGGGCGCACTCGGTCCCAGAGTTCAGGAGTGTGCTGT
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 TACCAGGCAGCTGCGCTCAGCAAAGCCTTTAAAGTGAAGCCATTTGTCGTCGAGATGCAGTGGTCTACC
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 GGGCATCAAGGCTCACTTCAACCTGGATGAGAGTGGCGTGTGCTCAGTCTAGACAGGGTGGAGTCTGATTT
 GAGACTGTTGAGGACAGCGCAGAAGAGGAATCTACTCTACCAAACCTGGCAACACCATTTCCAGCC
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 GAGGATGGCTCTCAGCCCCACCCCTGAACCTAAGGGAGATGCAACCCCTGAGGGAGAAAAGGCCACAG
 AAAAGAAAATGGGGACAAGTCTGAGGCCCAGAAACCAAGTGAGAAGGCAGAGGCAGGGCCTGAGGGCGT
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 CCAGTGACCAGGGGGAGAAGGTATCCCTCCAGCAGGCCAGACTGAAGATGCAGAGCCATTTCCAGAAC
 TGAGAAAAGTAGAGACTGGATCCGAGCCAGGAGACTGAGCCTTTGGAGTTAGGAGTCTGGAGCAGAA
 CCTGAACAGAAAACAATCGACAGGACAGAAGCGGCCTTTGAAGAACGACGAACTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG214178 representing NM_006389
 Red=Cloning site Green=Tags(s)

MADKVRQRPRRRVCWALVAVLLADLLALSDTLAVMSVDLGSSEMKVAIVKPGVPMEIVLNKESRRKTPV
 IVTLKENERFFGDSAASMAIKNPKATLRYFQHLLGKQADNPHVALYQARFPEHELTFDPQRQTVHFQISS
 QLQFSPEEVLGMVLNYSRSLAEDFAEQPIKDAVITVPVFFNQAERRAVLQAARMAGLKVLLQLINDNTATA
 LSYGVFRRKDINTTAQNIMFYDMGSGSTVCTIVTYQMVKTEAGMQPQLQIRGVGFDRTLGGLEMLRLR
 ERLAGLFNEQRKGQRAKDVRENPRAMAKLLREANRLKTVLSANADHMAQIEGLMDDVDFKAKVTRVEFEE
 LCADLFRVPGPVQALQSAEMSLDEIEQVILVGGATRVPRVQEVLLKAVGKEELGKNINADEAAAAMGAV
 YQAAALS KAFKVPFVVRDAVVYPILVEFTREVEEPIHSLKHNRVLSRMGPYPQRKVIITFNRYSHD
 FNFHINYGDLGFLGPEDLRVFGSQNLTTVKLKGVDGDFKKYDPYESKGIKAHFNLDESGVSLDRVESVF
 ETLVEDSAEEESTLTKLGNTISSLFGGGTTPDAKENGDTVQEEEESPAEGSKDEPGEQVELKEEAEPV
 EDGSQPPPEPKGDATPEGEKATEKENGDKSEAQKPSKAEAGPEGVAPAPEGEKKQKPARKRRMVEEIG
 VELVVLDPDLPEDKLAQSVQKLDLTLRDLEKQEREKAANSLEAFIFETQDKLYQPEYQEVSTEEQREE
 ISGKLSAASTWLEDEGVGATTVMLKEKLAELRKLCOGLFRVEERKKWPERLSALDNLLNHSSMFLKGAR
 LIPEMDQIFTEVEMTTLEKVINETWAWKNATLAEQAKLPATEKPVLLSKDIEAKMMALDREVQYLLNKAK
 FTKPRPRPKDKNGTRAEPPLNASASDQGEKVI PPAGQTEAEP ISEPEK VETGSEPGDTEPLELGGPGAE
 PEQKEQSTGQKRPLKNDEL

TRTRPLE - GFP Tag - V

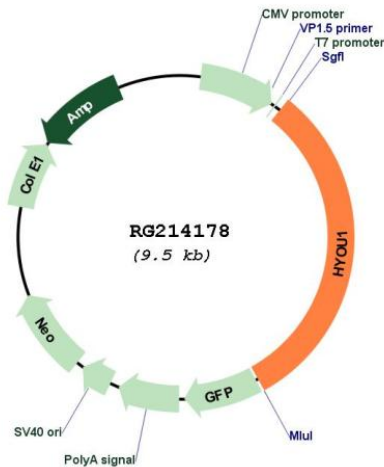
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_006389

ORF Size: 2997 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.

RefSeq: [NM_006389.2](#), [NP_006380.1](#)

RefSeq Size: 4552 bp

RefSeq ORF: 3000 bp

Locus ID: 10525

UniProt ID: [Q9Y4L1](#)

Cytogenetics: 11q23.3

Domains: HSP70

Protein Families: Transmembrane

Gene Summary: The protein encoded by this gene belongs to the heat shock protein 70 family. This gene uses alternative transcription start sites. A cis-acting segment found in the 5' UTR is involved in stress-dependent induction, resulting in the accumulation of this protein in the endoplasmic reticulum (ER) under hypoxic conditions. The protein encoded by this gene is thought to play an important role in protein folding and secretion in the ER. Since suppression of the protein is associated with accelerated apoptosis, it is also suggested to have an important cytoprotective role in hypoxia-induced cellular perturbation. This protein has been shown to be up-regulated in tumors, especially in breast tumors, and thus it is associated with tumor invasiveness. This gene also has an alternative translation initiation site, resulting in a protein that lacks the N-terminal signal peptide. This signal peptide-lacking protein, which is only 3 amino acids shorter than the mature protein in the ER, is thought to have a housekeeping function in the cytosol. In rat, this protein localizes to both the ER by a carboxy-terminal peptide sequence and to mitochondria by an amino-terminal targeting signal. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2014]