

## Product datasheet for **RG210009**

### HGD (NM\_000187) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HGD (NM_000187) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HGD
Synonyms:	AKU; HGO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG210009 representing NM\_000187  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGAGTTAAAGTACATTTCTGGATTGGGAATGAGTGTCTTCAGAGGATCCTCGCTGCCAGGTT  
 CCCTGCCAGAAGGACAGAATAATCCTCAGGTCTGCCCTACAATCTCTATGCTGAGCAGCTCTCAGGATC  
 GGCTTCACTTGTCCACGGAGCACCAATAAGAGAAGCTGGCTGTATAGGATTCTACCTTCAGTTTCTCAC  
 AAGCCCTTTGAATCCATTGACGAAGGCCATGCTACTCACAACGGGATGAAGTTGATCCTGATCCTAACCC  
 AGCTTAGATGGAAACATTTGAGATTCCAAAAGCATCTCAGAAGAAAGTAGACTTTGTGAGTGGCCTGCA  
 TACCTTGTGTGGAGCTGGAGACATAAAGTCTAACAATGGGCTTGCTATCCACATTTTCTCTGCAATACC  
 TCCATGGAGAACAGATGCTTTTACAATTCAGATGGGGACTTCTTGATTGTTCCGCAGAAAGGGAACCTTC  
 TCAATTTACACCGAGTTTGGCAAGATGCTTGTACAGCCCAATGAGATCTGCGTCATTAGAGAGGAATGCC  
 GTTCAGCATAGATGTCTTTGAGGAGACCAGGGGCTACATCTTGGAGGTCTATGGTGTCCACTTTGAGTTA  
 CCTGACCTTGGACCAATTTGGGGCAATGGCTTGGCCAATCCTCGTGATTTCTTGATACCCATTGCCTGGT  
 ATGAGGATCGCCAAGTACCAGGTGGTTACACGGTCATTAATAAATACCAGGGCAAGCTGTTTGTGCCAA  
 ACAGGATGTCTCCCGTTCAATGTTGTGGCCTGGCACGGGAATTATACACCCACAAAGTACAACCTGAAG  
 AATTTTCATGGTTATCAACTCAGTGGCCTTTGACCATGCAGACCCATCCATTTTCAGATATTGACTGCTA  
 AGTCTGTCCGCCCTGGAGTGGCCATTGCTGATTTTGTCACTTCCACCTCGATGGGGGGTTGCTGATAA  
 GACCTTACGGCCTCCTTATTACCATAGGAACTGCATGAGTGAGTTCATGGGACTCATCCGAGGTCACTAT  
 GAGGCAAAGCAAGGTGGGTTCTGCCAGGGGGAGGAGTCTACACAGCACAAATGACCCCCATGGACCTG  
 ATGCTGACTGCTTTGAGAAGGCCAGCAAGGTCAAGCTGGCACCTGAGAGGATTGCCGATGGCACCATGGC  
 ATTTATGTTTGAATCATCTTTAAGTCTGGCGGTACAAAAGTGGGGACTCAAGGCCTCCAGGTGTTTGGAT  
 GAGAACTACCACAAGTGCTGGGAGCCACTCAAGAGCCACTTCACTCCCACTCCAGGAACCCAGCAGAAC  
 CTAAT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG210009 representing NM\_000187  
 Red=Cloning site Green=Tags(s)

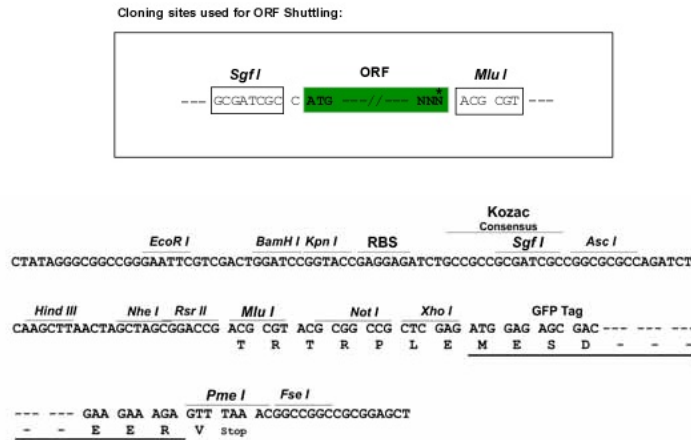
MAELKYISGFGNECSSEDPKCPGSLPEGQNNPQVCPYNLYAEQLSGSAFTCPRSTNKRSWLYRILPSVSH  
 KPFESIDEGHVTHNWDEVDPDPNQLRWKPFEPKASQKKVDFVSLHTLCGAGDIKSNGLAIHIFLCNT  
 SMENRCFYNSDGDFLIVPQKGNLLIYTEFGKMLVQPNEICVIQRGMRFSIDVFEETRGIILEVYGVHVEL  
 PDLGPIGANLANPRDFLIPIAWYEDRQVPGGYTVINKYQKGLFAAQDVSFPFNVAWHGNYTPYKYNLK  
 NFMVINSVAFDHADPSIFTVLTAKSVRPGVAIADFVIFPPRWGVADKTFRPPYYHRNCMSEFMGLIRGHY  
 EAKQGGFLPGGSLHSTMTPHGPDADCFEKASKVKLAPERIADGTMAMFESSLSLAVTKWGLKASRCLD  
 ENYHKCWEPLKSHFTPNRSRPAEPN

**TRTRPLE** – GFP Tag – V

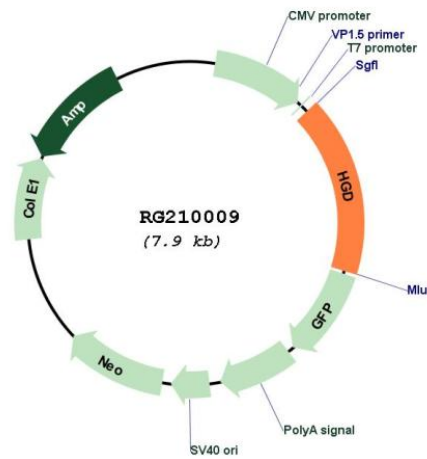
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_000187

ORF Size: 1335 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_000187.1</a></u>
<b>RefSeq Size:</b>	1920 bp
<b>RefSeq ORF:</b>	1338 bp
<b>Locus ID:</b>	3081
<b>UniProt ID:</b>	<u><a href="#">Q93099</a></u>
<b>Cytogenetics:</b>	3q13.33
<b>Domains:</b>	HgmA
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Tyrosine metabolism
<b>Gene Summary:</b>	This gene encodes the enzyme homogentisate 1,2 dioxygenase. This enzyme is involved in the catabolism of the amino acids tyrosine and phenylalanine. Mutations in this gene are the cause of the autosomal recessive metabolism disorder alkaptonuria.[provided by RefSeq, May 2010]