

## Product datasheet for **RG205216**

### HLAG (HLA-G) (NM\_002127) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HLAG (HLA-G) (NM_002127) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HLAG
Synonyms:	MHC-G
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG205216 representing NM_002127 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTGGTCATGGCACCCCGAACCTCTTCTGCTACTCTCGGGGCCCTGACCCTGACCGAGACCTGGG  
CGGGCTCCCACTCCATGAGGATTTTCAGCGCCCGCGTGTCCCGGCCAGCCGCGGGGAGCCCCGTTTCAT  
CGCCATGGGCTACGTGGACGACACGCAGTTCGTGCGGTCGACAGCGACTCGGCGTGTCCGAGGATGGAG  
CCGCGGGCGCCGTGGGTGGAGCGGGAGGGCCAGAGTATTGGGAAGAGGAGACACGGAACACCAAGGCC  
ACGCACAGACTGACAGAATGAACCTGCAGACCCTGCGCGGCTACTACAACCAGAGCGAGGCCAGTTCTCA  
TACCCTCCAGTGGATGATTGGCTGCGACCTGGGGTCCGACGGACGCCCTCCCGCGGGTATGAACAGTAT  
GCCTACGATGGCAAGGATTACCTCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCAGCGGACACTGCGG  
CTCAGATCTCCAAGCGCAAGTGTGAGGGCGCAATGTGGCTGAACAAAGGAGAGCCTACCTGGAGGGCAC  
GTGCGTGGAGTGGCTCCACAGATACCTGGAGAACGGGAAGGAGATGTGACGCGCGCGGACCCCCCAAG  
ACACACGTGACCCACCACCCTGTCTTTGACTATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACC  
CTGCGGAGATCATACTGACCTGGCAGCGGGATGGGAGGACCAGACCAGGACGTGGAGCTCGTGGAGAC  
CAAGCCTGCAGGGGATGGAACCTTCCAGAAGTGGCAGCTGTGGTGGTGCCTTCTGGAGAGGAGCAGAGA  
TACACGTGCCATGTGCAGCATGAGGGGCTGCCGAGCCCTCATGCTGAGATGGAAGCAGTCTTCCCTGC  
CCACCATCCCCATCATGGGTATCGTTGCTGGTCTGGTTGTCCTTGACGCTGTAGTCACTGGAGCTCGCGT  
CGCTGCTGTGCTGTGGAGGAAGAAGAGCTCAGAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG205216 representing NM\_002127  
 Red=Cloning site Green=Tags(s)

MVVMAPRTLFLLLSGALTLTETWAGSHSMRYFSAAVSRPSRGEPRFIAMGYVDDTQFVRFSDSACPRME  
 PRAPWVEREGPEYWEETRNTKAHAQTDRMNLQTLRGYYNQSEASSHTLQWMI GCDLGSDGRLLRGYEQY  
 AYDGKDYALNEDLRSWTAADTAAQISKRKCEANVAEQRRAYLEGTCEVWLHRYLENGKEMLQRADPPK  
 THVTHHPVFDYEATLRCWALGFYPAEIIILTWQRDGEDQTQDVELVETKPADGDTFQKWAAVVPSGEEQR  
 YTCHVQHEGLPEPLMLRWKQSSLPTIPIIMGIVAGLVVLA AVVTGA AVAVLWRKKSSD

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002127

**ORF Size:** 1014 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\\_002127.3](#), [NP\\_002118.1](#)

**RefSeq Size:** 1840 bp

**RefSeq ORF:** 1017 bp

**Locus ID:** 3135

**UniProt ID:** [P17693](#)

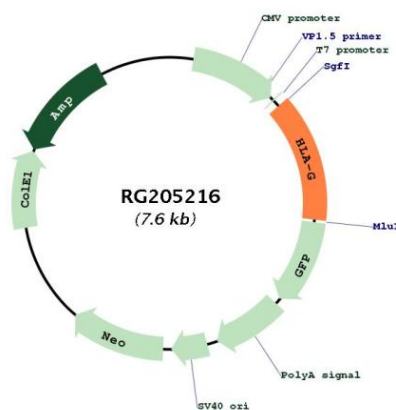
**Cytogenetics:** 6p22.1

**Protein Families:** Transmembrane

**Protein Pathways:** Allograft rejection, Antigen processing and presentation, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Endocytosis, Graft-versus-host disease, Natural killer cell mediated cytotoxicity, Type I diabetes mellitus, Viral myocarditis

**Gene Summary:** HLA-G belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. HLA-G is expressed on fetal derived placental cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domain, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exon 6 encodes the cytoplasmic tail. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG205216