

# Recombinant Full Length Human HLA-G Protein, C-Flag-tagged

**Cat. No.** HLA-G-1718HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human HLA-G Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | 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. |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Molecular Mass</b>   | 38.3 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>AA Sequence</b>      | MVVMAPRTLFLLLSGALTLTETWAGSHSMRYFSAAVSRPSRGEPRFIAMGYVDDTQ<br>FVRFDSDSACPRME PRAPWVEREGPEYWEEETRNTKAHAQTDRMNLQTLRGYYN<br>QSEASSHTLQWMIGCDLGSDGRLLRGYEQY AYDGKDYLALNEDLRSWTAADTAAQ<br>ISKRKCEAANVAEQRRAYLEGTCVEWLHRYLENGKEMLQRADPPK THVTHHPVFD<br>YEATLRCWALGFYP AEIILTWQRDGEDQTQDVELVETKPA GDGTFQKWA AVVPSG                                                                                                                                                                                                                                                                               |

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|                         |                                                                                                                                                                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | EEQR<br>YTCHVQHEGLPEPLMLRWKQSSLPTIPIMGIVAGLVVLAADVVTGAAVA AVLWRKKSS<br>DTRTRPLEQKLISEEDLAANDILDYKDDDDKV                                                                                                                                              |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                                                                                                                         |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.                                                                                                        |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                                                                                                                             |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                                                                                                                                    |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                                                                                                                     |
| <b>Protein Families</b> | Transmembrane                                                                                                                                                                                                                                        |
| <b>Protein Pathways</b> | 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 |
| <b>Full Length</b>      | Full L.                                                                                                                                                                                                                                              |

## GENE INFORMATION

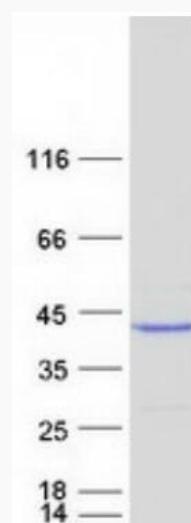
|                        |                                                                             |
|------------------------|-----------------------------------------------------------------------------|
| <b>Gene Name</b>       | HLA-G major histocompatibility complex, class I, G [ Homo sapiens (human) ] |
| <b>Official Symbol</b> | HLA-G                                                                       |
| <b>Synonyms</b>        | MHC-G                                                                       |

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|                |             |
|----------------|-------------|
| Gene ID        | 3135        |
| mRNA Refseq    | NM_002127.6 |
| Protein Refseq | NP_002118.1 |
| MIM            | 142871      |
| UniProt ID     | P17693      |



Coomassie blue staining of purified HLA-G protein.