

## Recombinant Human HLA-G protein

**Cat. No.** HLA-G-39H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human HLA-G protein (25-338aa) was fused to 6xHis/SUMO-tag at the N-terminus and expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>    | 25-338 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <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>             | Liquid or Lyophilized powder. If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b>   | 51.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>AA Sequence</b>      | GSLSMRYFSAAVSRPGRGEPRIAMGYVDDTQFVRFDSDSACPRMEPRAPWVEQ<br>EGPEYWEEETRNKHAHAQTDRMNLQTLRGYYNQSEASSHTLQWMIGCDLGSDGR                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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LLRGYEQYAYDGKDYALNEDLRSWTAADTAAQISKRKCEANVAEQRRAYLEGTC  
VEWLHRYLENGKEMQLRADPPKTHVTHHPVFDYEATLRCWALGFYPAEIILTWQRD  
GEDQTQDVELVETRPAGDGTQKWAAVVPSGEEQRYTCHVQHEGLPEPLMLRW  
KQSSLPTIPIMGIVAGLVVLAAVVTGAAVA AVLWRKKSSD

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>      | <1.0 EU per 1g (determined by the LAL method).                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Purity</b>         | Greater than 90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage</b>        | Store at -20 centigrade upon receipt, aliquoting is necessary for mutiple use. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                  |
| <b>Expiry</b>         | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20/-80 centigrade. The shelf life of lyophilized form is 12 months at -20/-80 centigrade.                                                                                                                      |
| <b>Reconstitution</b> | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20/-80 centigrade. Our default final concentration of glycerol is 50%. Customers could use it as reference. |

## GENE INFORMATION

|                        |       |
|------------------------|-------|
| <b>Gene Name</b>       | HLA-G |
| <b>Official Symbol</b> | HLA-G |
| <b>Synonyms</b>        | MHC-G |

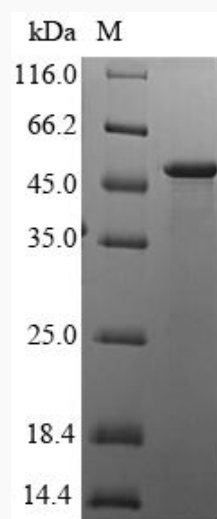
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|                |                |
|----------------|----------------|
| Gene ID        | 3135           |
| mRNA Refseq    | NM_001363567.1 |
| Protein Refseq | NP_001350496.1 |
| MIM            | 142871         |
| UniProt ID     | P17693         |

**SDS-PAGE of HLA-G-39H**



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.