

Full-Length

## HLA-G (Human) Recombinant Protein (P01)

Catalog # H00003135-P01

Size 50 ug

### Specification

|                            |                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------|
| <b>Product Description</b> | Human HLA-G full-length ORF (1 a.a. - 284 a.a.) recombinant protein with GST-tag at N-terminal. |
|----------------------------|-------------------------------------------------------------------------------------------------|

|                 |                                                                                                                                                                                                                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sequence</b> | MPHGRPGYSRVSGSGIHPEAAGPAQTLYLGE PQAPLPKSLRVGPGEGEARWAGLTEGVGPGSH<br>TLQWMIGCDLGSDGRLLRGYEQYAYDGKDYALNEDLRSWTAADTAAQISKRKCEANVAEQRR<br>AYLEGTCVEWLHRYLENGKEMLRADPPKTHVTHHPVFDYEATLRCWALGFYPAEIILTWQRDGE<br>DQTQDVELVETRPAGDGTQKWAAVVVP SGEEQRYTCHVQHEGLPEPLMLRWKQSSLPTIPIMG<br>NAGLVVLA AVVTGA AVA AVLWRKKSSD |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|             |                       |
|-------------|-----------------------|
| <b>Host</b> | Wheat Germ (in vitro) |
|-------------|-----------------------|

|                             |      |
|-----------------------------|------|
| <b>Theoretical MW (kDa)</b> | 57.6 |
|-----------------------------|------|

|                           |                                                       |
|---------------------------|-------------------------------------------------------|
| <b>Preparation Method</b> | <a href="#">in vitro wheat germ expression system</a> |
|---------------------------|-------------------------------------------------------|

|                     |                                   |
|---------------------|-----------------------------------|
| <b>Purification</b> | Glutathione Sepharose 4 Fast Flow |
|---------------------|-----------------------------------|

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| <b>Storage Buffer</b> | 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer. |
|-----------------------|--------------------------------------------------------------------------|

|                            |                                                                 |
|----------------------------|-----------------------------------------------------------------|
| <b>Storage Instruction</b> | Store at -80°C. Aliquot to avoid repeated freezing and thawing. |
|----------------------------|-----------------------------------------------------------------|

|             |                                                                        |
|-------------|------------------------------------------------------------------------|
| <b>Note</b> | Best use within three months from the date of receipt of this protein. |
|-------------|------------------------------------------------------------------------|

### Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

## Gene Info — HLA-G

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Entrez GeneID       | <a href="#">3135</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| GeneBank Accession# | <a href="#">AK093478.1</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Gene Name           | HLA-G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Gene Alias          | MHC-G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Gene Description    | major histocompatibility complex, class I, G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Omim ID             | <a href="#">142871</a> <a href="#">600807</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Gene Ontology       | <a href="#">Hyperlink</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Gene Summary        | <p>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]</p> |
| Other Designations  | HLA class I molecule HLA-G histocompatibility antigen, class I, G MHC class I antigen OTTHUMP00000039485 b2 microglobulin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Pathway

- [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](#)

## Disease

- [Abortion](#)
- [Anemia](#)
- [Arthritis](#)
- [Asthma](#)
- [Autoimmune Diseases](#)
- [Behcet Syndrome](#)
- [Birth Weight](#)
- [Bronchial Hyperreactivity](#)
- [Carcinoma](#)
- [Cardiomyopathy](#)
- [Cardiovascular Diseases](#)
- [Cervical Intraepithelial Neoplasia](#)
- [Cholestasis](#)
- [Chorioamnionitis](#)
- [Colitis](#)
- [Coronary Aneurysm](#)
- [Crohn Disease](#)
- [Cytomegalovirus Infections](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Ductus Arteriosus](#)
- [Eclampsia](#)
- [Edema](#)

- [Fetal Diseases](#)
- [Fetal Membranes](#)
- [Gastrointestinal Diseases](#)
- [Genetic Predisposition to Disease](#)
- [Graft vs Host Disease](#)
- [Hepatitis](#)
- [Hepatitis C](#)
- [HIV Infections](#)
- [Hypersensitivity](#)
- [Infant](#)
- [Infection](#)
- [Infertility](#)
- [Lupus Erythematosus](#)
- [Mucocutaneous Lymph Node Syndrome](#)
- [Multiple Sclerosis](#)
- [Obstetric Labor](#)
- [Papillomavirus Infections](#)
- [Photosensitivity Disorders](#)
- [Pneumonia](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prenatal Exposure Delayed Effects](#)
- [Psoriasis](#)
- [Purpura](#)
- [Sarcoidosis](#)

- [Thalassemia](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Cervical Neoplasms](#)