

PRODUCT INFORMATION

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| Target                       | HLA-A  |
| Synonyms                     | Aw-33;Aw-74;HLAA   |
| Description                  | Recombinant human HLA-A protein with C-terminal human Fc tag   |
| Delivery                     | Under development  |
| Uniprot ID                   | P04439   |
| Expression Host              | HEK293   |
| Tag                          | C-Human Fc Tag   |
| Molecular Characterization   | HLA-A(Gly25-Ile308) hFc(Glu99-Ala330)  |
| Molecular Weight             | The protein has a predicted molecular mass of 56.76 kDa after removal of the signal peptide.   |
| Purity                       | The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.   |
| Formulation & Reconstitution | Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.   |
| Storage & Shipping           | Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.  |
| Background                   | HLA-A 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. Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon 1 encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail. Polymorphisms within exon 2 and exon 3 are responsible for the peptide binding specificity of each class one molecule. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. Hundreds of HLA-A alleles have been described. |
| Usage                        | Research use only  |

