

## Apolipoprotein A-I/APOA1 Protein, Mouse, Recombinant (hFc)

### General Information

Synonyms:	Alp-1;Ltw-1;Lvtw-1;Apoa-1;42248;apolipoprotein A-I;42249;apoA-I;Brp-14;apo-AI
Protein Construction:	Asp25-Gln264
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q00623
Molecular Weight:	54.68 kDa (predicted); 55-65 kDa (reducing conditions)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Bis-Tris PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 $\mu$ m filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100  $\mu$ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Apolipoprotein A1 (ApoA1) is a main protein moiety in high-density lipoprotein (HDL) particles. Generally, ApoA1 and HDL are considered as atheroprotective. In prooxidant and inflammatory microenvironment in the vicinity to the atherosclerotic lesion, ApoA1/HDL are subjected to modification. The chemical modifications such as oxidation, nitration, etc result in altering native architecture of ApoA1 toward dysfunctionality and abnormality.

Reference

Toptas B, et al. (2011) Comparison of lipid profiles with APOA1 MspI polymorphism in obese children with hyperlipidemia. *In Vivo*. 25(3): 425-30.

Haase CL, et al. (2011) Mutation in APOA1 predicts increased risk of ischaemic heart disease and total mortality without low HDL cholesterol levels. *J Intern Med*. 270(2): 136-46.

Wu Z, et al. (2011) The low resolution structure of ApoA1 in spherical high density lipoprotein revealed small angle neutron scattering. *J Biol Chem*. 286(14): 12495-508.

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