

Human APOE2/Apolipoprotein E Protein

Cat. No. APO-HM1E2

Description

Source	Recombinant Human APOE2/Apolipoprotein E Protein is expressed from HEK293 with His tag at the C-terminus. It contains Lys19-His317(R176C).
Accession	P02649-1
Molecular Weight	The protein has a predicted MW of 35.28 kDa. Due to glycosylation, the protein migrates to 35-42 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

Formulation and Storage

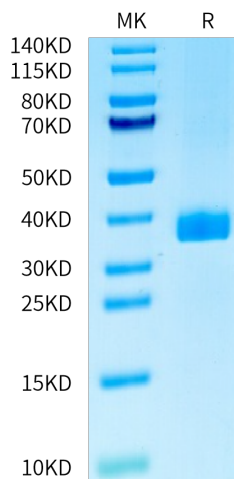
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Apolipoprotein E (apoE) is a lipid carrier in both the peripheral and the central nervous systems. Lipid-loaded apoE lipoprotein particles bind to several cell surface receptors to support membrane homeostasis and injury repair in the brain. Considering prevalence and relative risk magnitude, the $\epsilon 4$ allele of the APOE gene is the strongest genetic risk factor for late-onset Alzheimer's disease (AD).

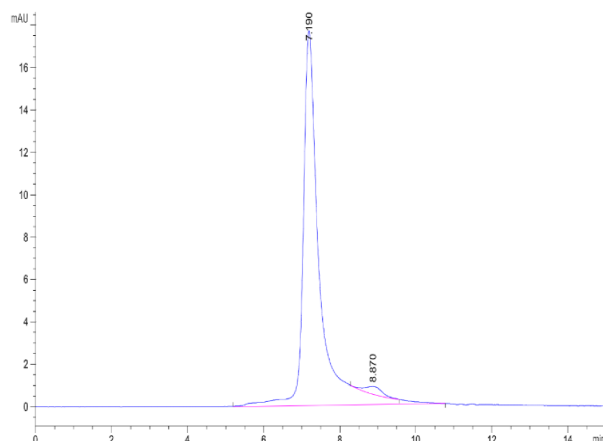
Assay Data

Tris-Bis PAGE



Human APOE2 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

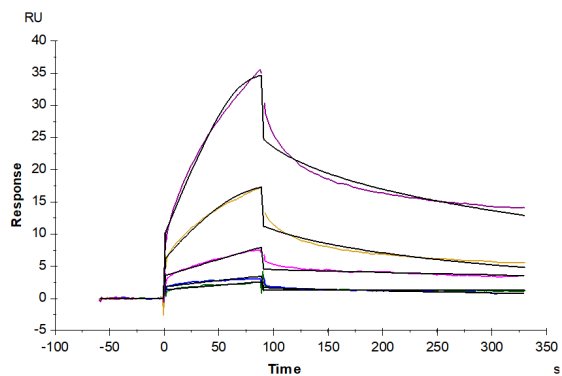
SEC-HPLC



The purity of Human APOE2 is greater than 95% as determined by SEC-HPLC.

Assay Data

SPR Data



Human TREM2, hFc Tag captured on CM5 Chip via Protein A can bind Human APOE2, His Tag with an affinity constant of 27.11 nM as determined in SPR assay (Biacore T200).