

## Active Recombinant Human APOE3 Protein, Tag Free

Cat. No. APOE-11184H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <b>Product Overview</b> | Human APOE3 Protein, Tag Free is expressed from human 293 cells (HEK293). It contains AA Lys 19-His 317 (Accession # P02649-1). This protein carries no "tag". Predicted N-terminus: Lys 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>    | 19-317 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | <p>APOE is an apolipoprotein, a protein associating with lipid particles, that mainly functions in lipoprotein-mediated lipid transport between organs via the plasma and interstitial fluids. APOE is a core component of plasma lipoproteins and is involved in their production, conversion and clearance. Apolipoproteins are amphipathic molecules that interact both with lipids of the lipoprotein particle core and the aqueous environment of the plasma. As such, APOE associates with chylomicrons, chylomicron remnants, very low density lipoproteins (VLDL) and intermediate density lipoproteins (IDL) but shows a preferential binding to high-density lipoproteins (HDL). It also binds a wide range of cellular receptors including the LDL receptor/LDLR, the LDL receptor-related proteins LRP1, LRP2 and LRP8 and the very low-density lipoprotein receptor/VLDLR that mediate the cellular uptake of the APOE-containing lipoprotein particles.</p> |
| <b>Form</b>             | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bio-activity</b>   | 3e5 of HeLa cells were co-incubated with 50 nM Cy3-labeled LNPs-siRNA in the presence or absence of 3 µg/mL Human Apolipoprotein E/APOE3 Protein, Tag Free, washed and analyzed with FACS. PE signal was used to evaluate the expression of Cy3+ HeLa cells.                                                                 |
| <b>Molecular Mass</b> | The protein has a calculated MW of 35.0 kDa. The protein migrates as 37-40 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                  |
| <b>Endotoxin</b>      | Less than 1.0 EU/µg by the LAL method/rFC method.                                                                                                                                                                                                                                                                            |
| <b>Purity</b>         | >90% as determined by SDS-PAGE. >90% as determined by SEC-MALS.                                                                                                                                                                                                                                                              |
| <b>Storage</b>        | This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | APOE apolipoprotein E [ Homo sapiens (human) ]                                                                                          |
| <b>Official Symbol</b> | APOE                                                                                                                                    |
| <b>Synonyms</b>        | APOE; apolipoprotein E; AD2, Alzheimer disease 2 (APOE*E4 associated, late onset); apo-E; apolipoprotein E3; AD2; LPG; LDLCQ5; MGC1571; |

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|----------------|-----------|
| Gene ID        | 348       |
| mRNA Refseq    | NM_000041 |
| Protein Refseq | NP_000032 |
| MIM            | 107741    |
| UniProt ID     | P02649    |

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