

Product Information

Monoclonal Anti-Apolipoprotein E Clone E6D7

produced in mouse, purified immunoglobulin

Catalog Number **A8599**

Product Description

Monoclonal Anti-Apolipoprotein E (ApoE, mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with a synthetic peptide spanning the polymorphic amino acid position 158 of ApoE. The immunoglobulin was isolated from tissue culture supernatant by ammonium sulfate precipitation followed by dialysis.

Monoclonal Anti-Apolipoprotein E recognizes the E2, E3 and E4 isoforms of human ApoE by immunoblotting, ELISA, immunoprecipitation and immunohistochemistry on fixed sections.

Apolipoprotein E (ApoE) is a 299 amino acid plasma protein with a molecular weight of 34 kDa.¹ ApoE, synthesized primarily in the liver, mediates the transport of lipid and cholesterol, ligands for the low-density lipoprotein (LDL) and very low density lipoprotein (VLDL) receptors, through the bloodstream. There are three major isoforms of ApoE: E2, E3 and E4. Recent research suggests that ApoE contributes to the development of Alzheimer's Disease (AD). The E4 isoform, in particular, is elevated in both late onset and sporadic AD patients.^{2,3} In fact, immunostaining of ApoE labeled senile plaque amyloids, vascular amyloids and neurofibrillary tangles, all pathological characteristics of AD. ApoE has been shown to bind to synthetic β -amyloid protein ($A\beta$)² and can exist as complexes with $A\beta$ polymers.⁴ *In vitro*, ApoE can accelerate the formation of amyloid fibrils from soluble $A\beta$.⁵

Reagent

Supplied at a concentration of 1 mg/ml in phosphate buffered saline.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20°C . For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: the recommended working dilution is 1:100 to 1:1,000

Immunohistochemistry: the recommended working dilution is 1:100 to 1:10,000.

Note 1: For immunohistochemistry, the epitope must be re-exposed in fixed tissues by pretreatment of tissue with 70 % formic acid for 10-30 minutes at room temperature.

Note 2: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

1. Mahley, R.W., *Science*, **240**, 622-630 (1988).
2. Strittmatter, R.J. et al., *Proc. Natl. Acad. Sci. USA*, **90**, 1977-1981 (1993).
3. Saunders, A.M. et al., *Neurology*, **43**, 1467-1472 (1993).
4. Naslund, J. et al., *Neuron*, **15**, 219-228 (1995).
5. Wisniewski, T. et al., *Am. J. Pathol.*, **145**, 1030-1035 (1994).

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