

# ApoE4 monoclonal antibody (4E4)

Apolipoproteins are plasma lipoproteins that function as transporters of lipids and cholesterol in the circulatory system. Human ApoE is an apolipoprotein that has three isoforms: ApoE2, ApoE3, and ApoE4.

The ApoE4 variant is the largest known genetic risk factor for late-onset Alzheimer's disease, and while the exact mechanism remains to be determined, it appears there may be an interaction with beta-amyloid. Alzheimer's disease is characterized by build-ups of aggregates of the peptide beta-amyloid. Apolipoprotein E enhances proteolytic break-down of this peptide, both within and between cells. The isoform ApoE4 is not as effective as the others at promoting these reactions, resulting in increased vulnerability to AD in individuals with that gene variation.

This antibody is covered by our [Worry-Free Guarantee](#).

## Ordering Information

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|                 |       |
|-----------------|-------|
| ENZ-ABS295-0100 | 100µg |
|-----------------|-------|

## Manuals, SDS & CofA

[View Online »](#)

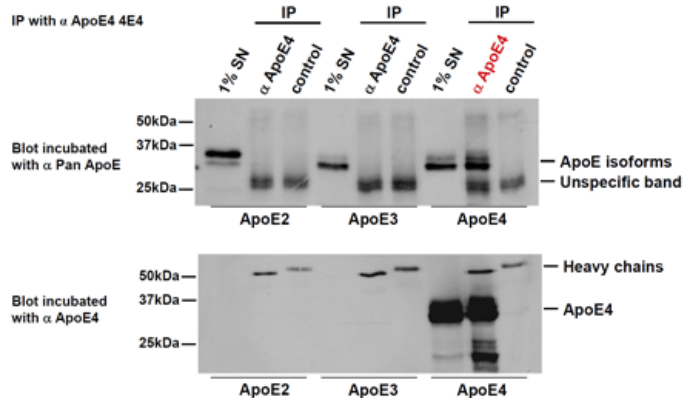


Figure 2. Immunoprecipitation. ApoE4, mAb (4E4) immunoprecipitates specifically ApoE4 but not ApoE2 or ApoE3.

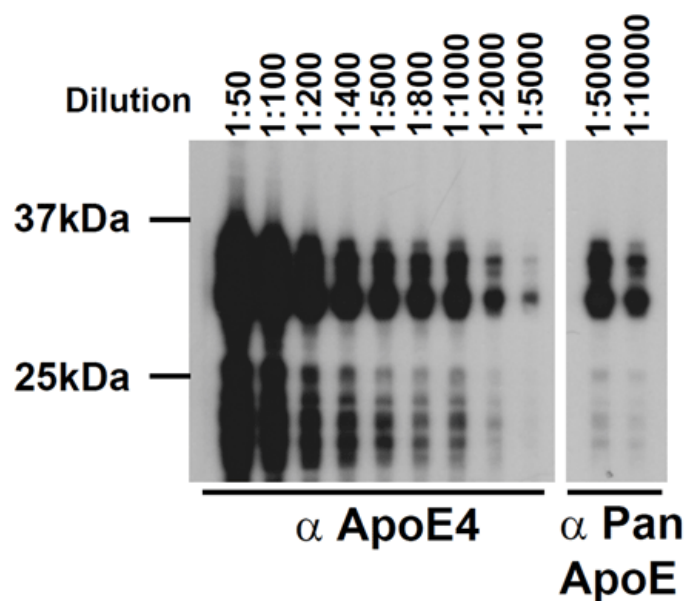


Figure 1. Western blot of ApoE4, mAb (4E4) (Prod. No. ENZ-ABS295).  $\alpha$ ApoE4 4E4: Mouse monoclonal antibody 4E4 specific for ApoE4, cell culture supernatant.  
 $\alpha$ Pan ApoE: Rabbit polyclonal serum recognizing all three ApoE proteins.

## Handling & Storage

**Handling** Avoid freeze/thaw cycles.

**Long Term Storage** -20°C

**Shipping** Blue Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

**Alternative Name** Apolipoprotein E4

**Application** ELISA, IP, WB

**Clone** 4E4

**Crossreactivity** Does not cross-react with ApoE2 or ApoE3.

**Formulation** Liquid. In PBS containing 50% glycerol and 0.09% sodium azide.

**Host** Mouse

**Immunogen** Synthetic peptide corresponding to residues surrounding Arg110 of human ApoE4 protein.

**Isotype** IgG1k

**Purity Detail** Protein G affinity purified.

**Recommendation** Western Blot (1:1,000) Suggested dilutions/conditions may not be available for all applications. Optimal conditions must be determined individually for each application.

**Source** Purified from ascites.

**Species Reactivity** Human

**Specificity** Recognizes endogenous levels of total ApoE4 protein.



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**Worry-free Guarantee**

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