# Product Datasheet

## ApoE4 Antibody (4E4) - BSA Free
## NBP1-49529

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**Publications: 10**

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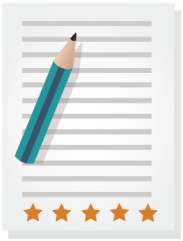


# NBP1-49529

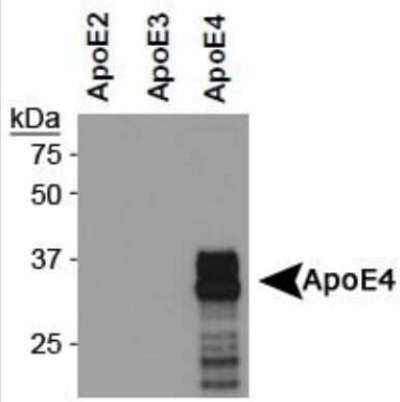
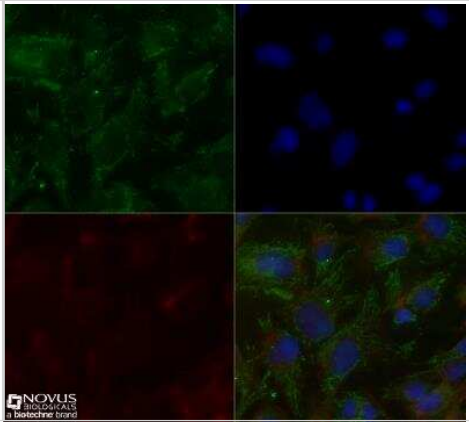
ApoE4 Antibody (4E4) - BSA Free

| Product Information | |
|---|---|
| **Unit Size** | 0.1 ml |
| **Concentration** | 1 mg/ml |
| **Storage** | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| **Clonality** | Monoclonal |
| **Clone** | 4E4 |
| **Preservative** | 0.05% Sodium Azide |
| **Isotype** | IgG1 Kappa |
| **Purity** | Protein G purified |
| **Buffer** | PBS |
| **Target Molecular Weight** | 34 kDa |

| Product Description | |
|---|---|
| **Host** | Mouse |
| **Gene ID** | 348 |
| **Gene Symbol** | APOE |
| **Species** | Human |
| **Specificity/Sensitivity** | This antibody is specific for ApoE4. It does not cross-react with the ApoE2 or ApoE3 isoforms. |
| **Immunogen** | Synthetic peptide made to an internal region of human ApoE4 (within residues 100-150) [Uniprot: P02649] |

| Product Application Details | |
|---|---|
| **Applications** | Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation |
| **Recommended Dilutions** | Western Blot 1:1000-1:2000, ELISA 1:100-1:2000, Immunocytochemistry/ Immunofluorescence 2-5 ug/ml, Immunoprecipitation 1:10-1:500 |
| **Application Notes** | In Western blot, a band can been seen at approximately 34 kDa. |

## Images

| | |
|---|---|
| Western Blot: ApoE4 Antibody (4E4) [NBP1-49529] - Analysis of ApoE4 expression in concentrated supernatants of CHO cells secreting human ApoE2, ApoE3 or ApoE4 using NBP1-49529. Image courtesy of Dr. Marko Roblek from the Medical University of Vienna. |  |
| Immunocytochemistry/Immunofluorescence: ApoE4 Antibody (4E4) [NBP1-49529] - HepG2 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with anti-ApoE4 (4E4) at 5 ug/ml overnight at 4C and detected with an anti-mouse DyLight 488 (Green) at a 1:500 dilution. Actin was detected with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective. |  |

## Publications


Lennol MP, Sanchez-Dominguez I, Cuchillo-Ibanez I et al. Apolipoprotein E imbalance in the cerebrospinal fluid of Alzheimer's disease patients Alzheimer's research & therapy 2022-11-02 [PMID: 36324176] (WB, Human, Rat)

Foley K, Hewes A, Garceau D et al. The APOE epsilon 3/epsilon 4 Genotype Drives Distinct Gene Signatures in the Cortex of Young Mice Front Aging Neurosci 2022-04-04 [PMID: 35370604]

Sepulveda J, Luo N, Nelson M et al. Independent APOE4 knock-in mouse models display reduced brain APOE protein, altered neuroinflammation, and simplification of dendritic spines Journal of neurochemistry 2022-07-15 [PMID: 35838553]

Dilliard SA, Cheng Q, Siegwart DJ On the mechanism of tissue-specific mRNA delivery by selective organ targeting nanoparticles Proceedings of the National Academy of Sciences of the United States of America 2021-12-28 [PMID: 34933999]

Kotredes KP, Oblak A, Pandey RS Et al. Uncovering Disease Mechanisms in a Novel Mouse Model Expressing Humanized APOE epsilon 4 and Trem2*R47H Frontiers in aging neuroscience 2021-10-11 [PMID: 34707490] (WB, Human)

Qi G, Mi Y, Shi X et al. ApoE4 Impairs Neuron-Astrocyte Coupling of Fatty Acid Metabolism Cell 2021-01-05 [PMID: 33406436] (ICC/IF, Mouse)

Kotredes K, Oblak A, Pandey R, et al. A multi-discipline phenotyping platform for late-onset Alzheimer’s disease employed on a novel, humanized APOEε4.Trem2*R47H mouse model Research Square 2021-01-07 (WB, Mouse)

Veiga S, Rodriguez-Martin A, Garcia-Ribas G et al. Validation of a novel and accurate ApoE4 assay for automated chemistry analyzers Sci Rep 2020-02-07 [PMID: 32034174] (Human)

Rodriguez Martin A, Calero Lara M, Calero Rueda O Methods for Apolipoprotein Detection Patent 2017-11-05 (ELISA, Human)

Calero O, Garcia-Albert L, Rodriguez-Martin A et al. A fast and cost-effective method for apolipoprotein E isotyping as an alternative to APOE genotyping for patient screening and stratification. Sci Rep 2018-04-13 [PMID: 29654261] (ELISA, Human)

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## Products Related to NBP1-49529

| | |
|---|---|
| HAF007 | Goat anti-Mouse IgG Secondary Antibody [HRP] |
| NB720-B | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin] |
| NBP1-43319-0.5mg | Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1) |
| NBP1-49529H | ApoE4 Antibody (4E4) [HRP] |

### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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