

# 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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**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

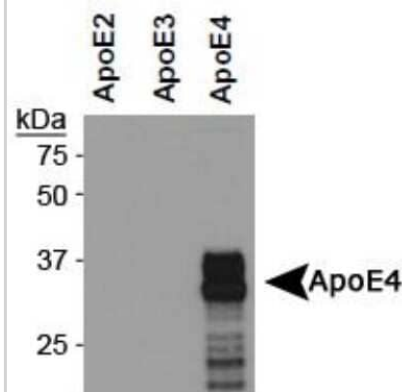
Product Description	
Description	Novus Biologicals Mouse ApoE4 Antibody (4E4) - BSA Free (NBP1-49529) is a monoclonal antibody validated for use in WB, ELISA, ICC/IF and IP. Anti-ApoE4 Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene 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 be seen at approximately 34 kDa.

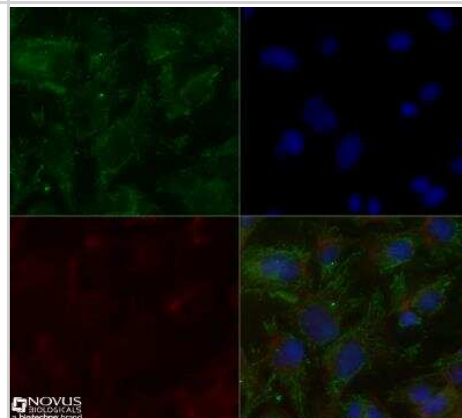


## Images

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

Rodríguez A, Calero O, Veiga S et al. A novel biochemical analysis for ApoE4 quantification in plasma and discrimination of homozygous and heterozygous APOE ε4 carriers. *Alzheimer's Research & Therapy* 2025-07-17 [PMID: 40671162]

Lenzol 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**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)

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### **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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