

APOE Recombinant Rabbit Monoclonal Antibody (16H22L18)

Product Details

Size	100 µg
Species Reactivity	Human, Mouse, Rat
Published Species	Mouse, Human
Host/Isotype	Rabbit / IgG
Expression system	Expi293
Class	Recombinant Monoclonal
Type	Antibody
Clone	16H22L18
Conjugate	Unconjugated
Immunogen	Peptide corresponding to amino acids 240-251 of human ApoE
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS
Contains	0.09% sodium azide
Storage conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_2532438

Applications	Tested Dilution	Publications
Western Blot (WB)	2-4 µg/mL	5 Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	2 Publications
Immunocytochemistry (ICC/IF)	1-3 µg/mL	1 Publication
in situ PLA (PLA)	-	1 Publication

Product Specific Information

This antibody is predicted to react with non-human primate and mouse based on sequence homology.

Intact IgG appears on a non-reducing gel as ~150 kDa band and upon reduction generating a ~25 kDa light chain band and a ~50 kDa heavy chain.

Recombinant rabbit monoclonal antibodies are produced using in vitro expression systems. The expression systems are developed by cloning in the specific antibody DNA sequences from immunoreactive rabbits. Then, individual clones are screened to select the best candidates for production. The advantages of using recombinant rabbit monoclonal antibodies include: better specificity and sensitivity, lot-to-lot consistency, animal origin-free formulations, and broader immunoreactivity to diverse targets due to larger rabbit immune repertoire.

Product Images For APOE Recombinant Rabbit Monoclonal Antibody (16H22L18)

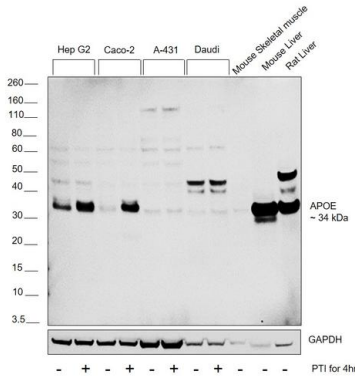
APOE Antibody (701241)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines tested owing to their inherent genetic constitution. Relative expression of APOE was observed in Hep G2, CaCo-2 as compared to A-431, Daudi using Anti-APOE Recombinant Rabbit Monoclonal Antibody (16H22L18) (Product # 701241) in Western Blot. {RE}



APOE Antibody (701241) in WB

Western blot was performed using Anti-APOE Recombinant Rabbit Monoclonal Antibody (16H22L18) (Product # 701241) and a 34 kDa band corresponding to APOE was observed across the cell lines and tissues tested. Whole cell extracts (30 µg lysate) of Hep G2 (Lane 1), Hep G2 treated with Protein Transport Inhibitor (PTI; 1x for 4 hours) (Lane 2), CaCo-2 (Lane 3), CaCo-2 treated with Protein Transport Inhibitor (PTI; 1x for 4 hours) (Lane 4), A-431 (Lane 5), A-431 treated with Protein Transport Inhibitor (PTI; 1x for 4 hours) (Lane 6), Daudi (Lane 7), Daudi treated with Protein Transport Inhibitor (PTI; 1x for 4 hours) (Lane 8), Mouse Skeletal Muscle (Lane 9), Mouse Liver (Lane 10), Rat Liver (Lane 11) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (2 µg/mL) and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:10,000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



APOE Antibody (701241) in WB

Western blot analysis was performed on Fig 1: Human plasma (Lane 1); Fig 2: Whole cell extracts (30 µg lysate) of Hep G2 (Lane 1) and CaCo-2 (Lane 2). The blots were probed with Anti-ApoE Rabbit Monoclonal Antibody (Product # 701241, 2 µg/mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal Secondary Antibody, HRP conjugate (Product # A27036, 0.4 µg/mL, 1:2500 dilution). In Fig 1, a 36 kDa band corresponding to ApoE was observed. In Fig 2, a 34 kDa band was observed across both cell lines, and, an additional 36 kDa band corresponding to an isoform of ApoE was observed in Lane 1. Known quantity of protein samples were electrophoresed using Novex®NuPAGE®12 % Bis-Tris gel (Product # NP0342BOX), XCell SureLock Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® 2 Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary and secondary Antibody. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).

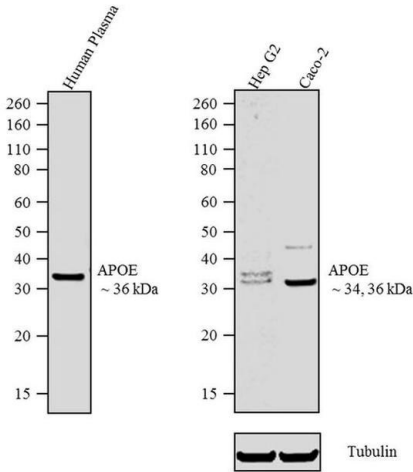


Fig. 1

Fig. 2

View more figures on thermofisher.com

11 References

Western Blot (5)

Molecular psychiatry

C/EBP is a key transcription factor for APOE and preferentially mediates ApoE4 expression in Alzheimer's disease.

"701241 was used in Western Blotting to find that C/EBP selectively promotes more ApoE4 expression versus ApoE3 in human neurons, correlating with higher activation of C/EBP in human AD brains with ApoE4/4 compared to ApoE3/3."

Authors: Xia Y,Wang ZH,Zhang J,Liu X,Yu SP,Ye KX,Wang JZ,Ye K,Wang XC

Year
2021

Species
Mouse

Acta neuropathologica

ApoE4 inhibition of VMAT2 in the locus coeruleus exacerbates Tau pathology in Alzheimer's disease.

"701241 was used in Western Blotting to show that ApoE4 selectively binds to the vesicular monoamine transporter 2 (VMAT2) and inhibits neurotransmitter uptake and that ApoE4 exacerbates Tau neurotoxicity by increasing VMAT2 vesicle leakage and facilitating AEP-mediated Tau proteolytic cleavage in the LC via DOPEGAL."

Authors: Kang SS,Ahn EH,Liu X,Bryson M,Miller GW,Weinshenker D,Ye K

Year
2021

Species
Mouse

[View more WB references on thermofisher.com](#)

Immunohistochemistry (1)

Aging cell

Monomeric C-reactive protein via endothelial CD31 for neurovascular inflammation in an ApoE genotype-dependent pattern: A risk factor for Alzheimer's disease?

"Published figure using APOE recombinant monoclonal antibody (Product # 701241) in Immunohistochemistry"

Authors: Zhang Z,Na H,Gan Q,Tao Q,Alekseyev Y,Hu J,Yan Z,Yang JB,Tian H,Zhu S,Li Q,Rajab IM,Blusztajn JK,Wolozin B,Emili A,Zhang X,Stein T,Potempa LA,Qiu WQ

Year
2021

Immunohistochemistry (Paraffin) (1)

JCI insight

Monocyte-derived alveolar macrophage apolipoprotein E participates in pulmonary fibrosis resolution.

"Published figure using APOE recombinant monoclonal antibody (Product # 701241) in Immunocytochemistry"

Authors: Cui H,Jiang D,Banerjee S,Xie N,Kulkarni T,Liu RM,Duncan SR,Liu G

Year
2020

Species
Human
Mouse

More applications with references on thermofisher.com

IHC (F) (2)

ICC/IF (1)

PLA (1)

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