

Rabbit Anti-Apolipoprotein E/ApoE [MD14R]: RM0276, RM0276RTU7

Intended Use: For Research Use Only

Description: Apolipoprotein E (ApoE) is a 34.2 kDa glycosylated protein with 299 amino acid residues. There are three isoforms in human (apoE2, apoE3, and apoE4) due to different amino acid residues at positions 112 and 158. ApoE is synthesized predominantly in the liver, but also by cells in the spleen, brain, lung, kidney, ovary, adrenal, and muscle tissues. Hepatic parenchyma cells are the main apoE producing cells in mammalian body, probably accounting for two thirds to three fourths of the plasma apoE. In the nervous system, apoE mRNA is present in neurons, astrocytes, ependymal cells, nonmyelinating Schwann cells, but not in microglia, oligodendroglia, choroidal cells, or myelinating Schwann cells. ApoE produced by mammalian cells exists in different forms, monomers, dimers, modified, unmodified, lipid-rich, and lipid-poor, and so forth. ApoE plays a double-role in immune responses. Both apoE containing lipoproteins and multimers of synthetic apoE peptides inhibited proliferation of cultured lymphocytes by inhibiting DNA synthesis and reducing phospholipid turnover in T cells. ApoE can also affect innate and acquired immune responses in vitro by its ability to suppress stimulation of cultured neutrophils. ApoE can bind lipopolysaccharide (LPS), attenuate the inflammatory response, and thus reduce LPS induced lethality. Injection of LPS stimulated higher expression of inflammatory cytokines like interleukin (IL)-1 β , IL-12, and interferon- γ (IFN- γ), as well as IL-6.

Specifications:

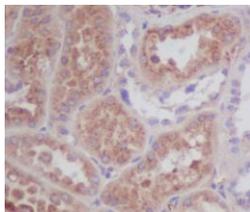
Clone: MD14R
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human
 Immunogen: A synthesized peptide derived from human Apolipoprotein E
 Localization: Secreted
 Formulation: Antibody in PBS pH7.4, containing BSA and \leq 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, IP, WB
 Package:

Description	Catalog No.	Size
Apolipoprotein E/ApoE Concentrated	RM0276	1 ml
Apolipoprotein E/ApoE Prediluted	RM0276RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Skin, intestine
 Concentrated Dilution: 50-100
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human kidney stained with anti-ApoE using DAB

References:

- Green fluorescent protein-tagged apolipoprotein E: A useful marker for the study of hepatic lipoprotein egress. Takacs CN, et al. Traffic 18:192-204, 2017.
- Apolipoprotein E Promotes Invasion in Oral Squamous Cell Carcinoma. Jayakar SK, et al. Am J Pathol 187:2259-2272, 2017.
- Glymphatic distribution of CSF-derived apoE into brain is isoform specific and suppressed during sleep deprivation. Achariyar TM, et al. Mol Neurodegener 11:74, 2016.

Doc. 100-RM0276
Rev. A