

## HRP anti-Apo E, 154-162 Antibody

<b>Catalog# / Size</b>	852803 / 25 µg 852804 / 100 µg
<b>Clone</b>	A17065A
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Apolipoprotein E, APO-E, Alzheimer Disease 2, LDLQC5, APOE, LPG, AD2
<b>Isotype</b>	Mouse IgG2b, κ
<b>Description</b>	Apolipoprotein E (Apo E) belongs to a class of apolipoproteins that mediate the binding, internalization, and catabolism of lipoprotein particles. Apo E is produced by the liver and macrophages in peripheral tissues where it regulates cholesterol metabolism. In the central nervous system, Apo E is primarily produced by astrocytes and plays an important role in transporting cholesterol to neurons via Apo E receptors. Apo E has three alleles (Apo E <sub>2</sub> , Apo E <sub>3</sub> and Apo E <sub>4</sub> ) that differ from each other by only one or two amino acids at positions 112 and 158. Apo E <sub>4</sub> is one of the largest known genetic risk factors for late-onset Alzheimer's disease. Furthermore, Apo E is associated with cardiovascular disease, Lipoprotein Glomerulopathy and Sea-Blue Histiocyte Disease.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	KLH conjugated Apo E peptide encompassing amino acids 154-162.
<b>Formulation</b>	This antibody is provided in 50% glycerol in aqueous buffered solutions with preservatives.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with HRP under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	Upon receipt, the antibody solution should be stored undiluted at -20°C, and protected from prolonged exposure to light.
<b>Application</b>	<a href="#">WB - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">Western blotting</a> . For Western blotting, the suggested use of this reagent is 1.0 - 5.0 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	This antibody cross-reacts with Apo E <sub>2</sub> , Apo E <sub>3</sub> , and Apo E <sub>4</sub> .
<b>RRID</b>	AB_2783423 (BioLegend Cat. No. 852803) AB_2783424 (BioLegend Cat. No. 852804)

### Antigen Details

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<b>Structure</b>	Human Apo E is a 299 amino acid protein with a molecular mass of 32 kD, and exists as 3 major alleles, Apo E <sub>2</sub> , Apo E <sub>3</sub> , and Apo E <sub>4</sub> .
<b>Distribution</b>	Tissue sources: Ubiquitously expressed. Highest levels in liver, brain, spleen, adrenal gland, and kidney. Cellular distribution: Plasma membrane, nucleus, endoplasmic reticulum, golgi apparatus, endosome, and extracellular.
<b>Function</b>	Apo E is involved in lipoprotein metabolism as well as the transport of fat-soluble vitamins, and

cholesterol. Apo E also forms complexes with amyloid beta peptides leading to its uptake and degradation by microglia.

<b>Interaction</b>	Tau, amyloid beta
<b>Ligand/Receptor</b>	LDL receptor, SORL1.
<b>Biology Area</b>	Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation
<b>Molecular Family</b>	Apolipoproteins

**Antigen References**

1. Mahley RW. 2016. *Arterioscler Thromb Vasc Biol.* 36: 1305-1315.
2. Riedel BC, et al. 2016 *J Steroid Biochem Mol Biol.* 160:134-47.
3. Tai LM, et al. 2016 *Acta Neuropathol.* 131(5):709-23.
4. Kim J, et al. 2014. *Mol. Cells.* 37:767
5. Holtzman DM, et al. 2012. *Cold Spring Harb. Perspect. Med.* 2:a006312

**Gene ID** [348](#)

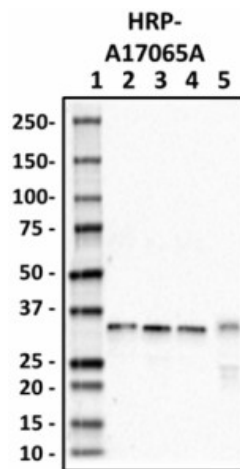
**Related Protocols**

[Western Blotting Protocol](#)

**Other Formats**

Purified anti-Apo E, 154-162, Biotin anti-Apo E, 154-162, HRP anti-Apo E, 154-162

**Product Data**



Western blot of HRP anti-Apo E, 154-162 antibody (clone A17065A). Lane 1: Molecular weight marker; Lane 2: 50 ng of Apo E2 recombinant human protein; Lane 3: 50 ng of Apo E3 recombinant human protein; Lane 4: 50 ng of Apo E4 recombinant human protein; Lane 5: 45 µg of human plasma. The blot was incubated with 1.0 µg/mL of the primary antibody overnight at 4°C. Enhanced chemiluminescence (Cat. No. 426302) was used as the detection system.

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