

PRODUCT INFORMATION



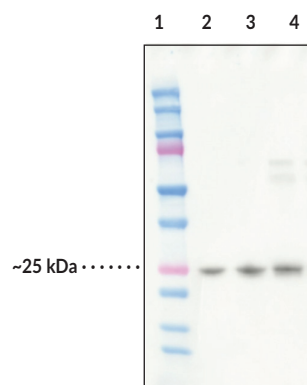
ApoA1 Monoclonal Antibody (Clone CC3821C4)

Item No. 13042

Overview and Properties

Contents:	This vial contains Protein G-purified monoclonal antibody.
Synonym:	Apolipoprotein A1
Immunogen:	Synthetic peptide from the internal region of human ApoA1
Cross Reactivity:	(-) ApoB
Species Reactivity:	(+) Human ApoA1
Uniprot No.:	P02647
Form:	Lyophilized
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Clone:	CC3821C4
Host:	Mouse
Isotype:	IgG1
Applications:	Western blot (WB); the recommended starting dilution for WB is 1:1,000. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Image



Lane 1: MW Markers
Lane 2: ApoA1 WRC (1 µl)
Lane 3: ApoA1 WRC (2 µl)
Lane 4: Human plasma (25 µg)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

ApoA1 is a major protein component in high-density lipoproteins (HDLs). It acts as an acceptor for sequential transfers of phospholipids and free cholesterol from peripheral tissues and transports cholesterol to the liver and other tissues for excretion and steroidogenesis.¹ Serum ApoA1 levels are inversely related to the risk of developing atherosclerosis.² Loss-of-function mutations are causes of diseases such as HDL deficiency type 1 (or Tangier disease) and type 2 (familial hypoalphalipoproteinemia), and systemic non-neuropathic amyloidosis.^{3,4} Liver and small intestine are two main sources of the protein.

ApoA1 is comprised of a single polypeptide chain of 243 amino acid residues with an estimated molecular weight of 28 kDa. Cayman's ApoA1 Monoclonal Antibody detects the protein from diluted human plasma (≤ 10 μ g total protein) by western blotting. Western blotting of recombinant ApoA1 samples suggest a detection limit of 5 ng.

References

1. Ajees, A.A., Anantharamaiah, G.M., Mishra, V.K., *et al.* Crystal structure of human apolipoprotein A-I: Insights into its protective effect against cardiovascular diseases. *Proc. Natl. Acad. Sci. USA* **103**(7), 2126-2131 (2006).
2. Haas, M.J., Reinacher, D., Li, J.P., *et al.* Regulation of apoA1 gene expression with acidosis: Requirement for a transcriptional repressor. *J. Mol. Endocrinol.* **27**(1), 43-57 (2001).
3. Tall, A.R. and Wang, N. Tangier disease as a test of the reverse cholesterol transport hypothesis. *J. Clin. Invest.* **106**(10), 1205-1207 (2000).
4. Cheung, M.C., Mendez, A.J., Wolf, A.C., *et al.* Characterization of apolipoprotein A-I- and A-II-containing lipoproteins in a new case of high density lipoprotein deficiency resembling tangier disease and their effects on intracellular cholesterol efflux. *J. Clin. Invest.* **91**(2), 522-529 (1993).

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