

# Product Information



## ApoAI Polyclonal Antibody

Item No. 10008463 • Lot No. XXXX

<b>Synonyms:</b>	Apolipoprotein A-I, Apolipoprotein AI
<b>Supplied as:</b>	This vial contains <b>lot specific</b> µg of peptide affinity-purified IgG in <b>lot specific</b> µl TBS, pH 7.4, containing glycerol, 0.5 mg/ml BSA and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Antigen:</b>	Synthetic peptide from human ApoAI amino acids 188-199; the antigen alignment with other known sequences is as follows: Human RLA EYHAKATEH Rabbit RLA EY q AKA r EH Pig RLA EY q AKA q E q Cow r LA EYHAKA s E q Mouse t L n EYH t r Ak t H Rat t L i EYH t KA s d H
<b>Cross-reactivity:</b>	(+) Human, mouse, and rat ApoAI; other species not tested
<b>Stability:</b>	≥1 year at -20°C
<b>Applications:</b>	The recommended starting dilution for western blot is <b>lot specific:lot specific (lot specific µg/ml)</b> and 1:75 (4 µg/ml) for immunocytochemistry. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

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

ApoAI is comprised of a single polypeptide chain of 243 amino acid residues with an estimated molecular weight of 28 kDa. Cayman's ApoAI polyclonal antibody detects the protein by western blot analysis in tissue and cell samples such as liver, intestine, and HepG2 cells. The antibody can also be used for immunocytochemistry.

### Laboratory Procedures

#### Immunofluorescent staining of cultured cells

1. Grow cells in 12 or 24 well plates until confluent.
2. Wash briefly with TBS, pH 7.4.
3. Fix the cells with 1% formaldehyde in TBS, pH 7.4, for 10 minutes.
4. Wash the cells three times with TBS containing 0.1% Triton-X 100 (TBSTX), 10 minutes each.
5. Incubate the cells with 10% normal serum (from the same species in which the secondary antibody is raised) in TBSTX for 30 minutes.
6. Incubate the cells with the antibody (recommended starting concentration of 4 µg/ml. The optimal working condition should be determined by titration) for one hour.
7. Wash the cells three times with TBSTX, 10 minutes each.
8. Incubate the cells in the dark for one hour with a fluorochrome-conjugated secondary antibody at a concentration recommended by the provider.
9. Wash the cells three times with TBSTX, 10 minutes each.
10. Examine the staining under a fluorescent microscope with appropriate filter. Store the plate at 4°C in the dark for later analysis.

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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## References

1. Ajees, A.A., Anantharamaiah, G.M., Mishra, V.K., *et al.* Crystal structure of human apolipoprotein A-1: Insights into its protective effect against cardiovascular diseases. *Proc. Natl. Acad. Sci. USA* **103**(7), 2126-2131 (2006).
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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**, 522-529 (1993).

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