



## Polyclonal Anti- Apolipoprotein A-1, APOA1 (Sepharose Bead Conjugate)

**Catalogue No.** PA1247-S

**Lot No.** 09G01

**Ig type:** rabbit IgG

**Size:** 100µg/vial

### Specificity

Human, rat, mouse. No cross reactivity with other proteins.

### Recommended application

(Immunoprecipitation(IP))

### Immunogen

A synthetic peptide corresponding to a sequence at the N-terminal of human APOA1, different to the related mouse sequence by two amino acids.

### Purification

Immunogen affinity purified.

### Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN<sub>3</sub>a<sub>3</sub> preservative.

### Storage

Store at 4°C for frequent use.

### Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

## BACKGROUND

Apolipoprotein A-1, also known as APOA1, is a human protein with a specific role in lipid metabolism. It binds to lipopolysaccharide or endotoxin, and has a major role in the anti-endotoxin function of HDL.<sup>1</sup> The gene is mapped to 11q23. And it is a single polypeptide chain with 243 amino acid residues of known primary amino acid sequence.<sup>2</sup> The ApoA-I protein promotes cholesterol efflux from tissues to the liver for excretion. It is a cofactor for lecithin cholesterolacyltransferase (LCAT) which is responsible for the formation of most plasma cholesteryl esters. ApoA-I was also isolated as a prostacyclin (PGI<sub>2</sub>) stabilizing factor, and thus may have an anticlotting effect.<sup>3</sup> Defects in the gene encoding it are associated with HDL deficiencies, including Tangier disease, and with systemic non-neuropathic amyloidosis. Additionally, ApoA-I overexpression promotes macrophage-specific reverse cholesterol transport.<sup>4</sup>

## REFERENCE

1. Ma J, Liao XL, Lou B, Wu MP (2004). "Role of apolipoprotein A-I in protecting against endotoxin toxicity". *Acta Biochim. Biophys. Sin. (Shanghai)* 36 (6): 419–24.
2. Brewer, H. B., Jr.; Fairwell, T.; LaRue, A.; Ronan, R.; Houser, A.; Bronzert, T. J. : The amino acid sequence of human apoA-I, an apolipoprotein isolated from high density lipoproteins. *Biochem. Biophys. Res. Commun.* 80: 623-630, 1978.
3. Yui Y, Aoyama T, Morishita H, Takahashi M, Takatsu Y, Kawai C (1988). "Serum prostacyclin stabilizing factor is identical to apolipoprotein A-I (Apo A-I). A novel function of Apo A-I". *J. Clin. Invest.* 82 (3): 803–7.
4. Zhang, Y.; Zanolini, I.; Reilly, M. P.; Glick, J. M.; Rothblat, G. H.; Rader, D. J. : Overexpression of apolipoprotein A-I promotes reverse transport of cholesterol from macrophages to feces in vivo. *Circulation* 108: 661-663, 2003.

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