Anti-Apolipoprotein A1 Antibody [JF0548] ET1702-23

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IF-Tissue, IHC-P, IP
Molecular Wt:	Predicted band size: 31 kDa
Clone number:	JF0548

Description: Apolipoprotein AI (Apo-AI) is a protein that in humans is encoded by the APOA1 gene. As the major component of high-density lipoprotein (HDL) particles, it has a specific role in lipid metabolism. Apolipoprotein AI is the major protein component of high density lipoprotein (HDL) particles in plasma. Chylomicrons secreted from the intestinal enterocyte also contain Apo-AI, but it is quickly transferred to HDL in the bloodstream. The protein, as a component of HDL particles, enables efflux of fat molecules by accepting fats from within cells (including macrophages within the walls of arteries which have become overloaded with ingested fats from oxidized low-density lipoprotein (LDL) particles) for transport (in the water outside cells) elsewhere, including back to LDL particles or to the liver for excretion.

Immunogen: Synthetic peptide within human Apolipoprotein A1 aa 1-50.

Positive control: Human plasma lysates, HepG2, Hela, human liver tissue.

Subcellular location: Secreted.

Database links: SwissProt: P02647 Human

Recommended Dilutions:

WB	1:500-1:2,000
IF-Cell	1:50-1:200
IF-Tissue	1:50-1:200
IHC-P	1:50-1:200

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

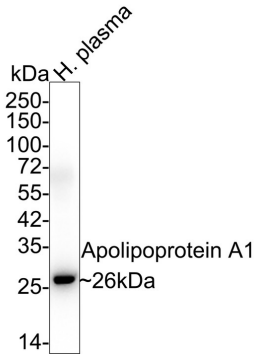

Fig1: Western blot analysis of Apolipoprotein A1 on human plasma lysates with Rabbit anti-Apolipoprotein A1 antibody (ET1702-23) at 1/1,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 31 kDa
Observed band size: 26 kDa

Exposure time: 5 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1702-23) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

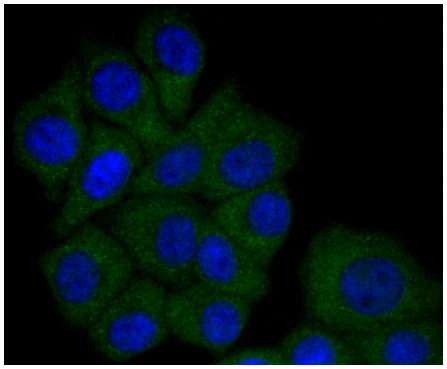

Fig2: ICC staining of Apolipoprotein A1 in HepG2 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1702-23, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

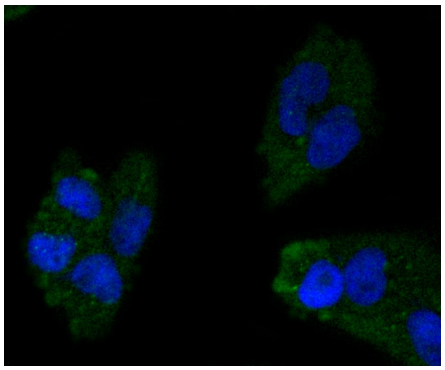

Fig3: ICC staining of Apolipoprotein A1 in Hela cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1702-23, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

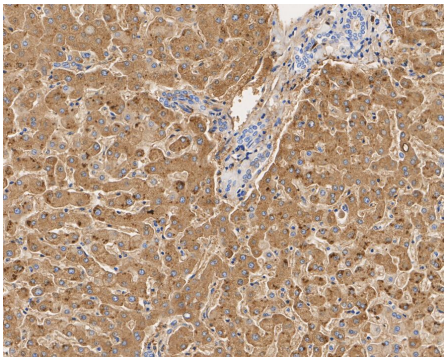

Fig4: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-Apolipoprotein A1 antibody (ET1702-23) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1702-23) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Xu X et al. Apolipoprotein A1-Related Proteins and Reverse Cholesterol Transport in Antiatherosclerosis Therapy: Recent Progress and Future Perspectives. Cardiovasc Ther. 2022 Jan
2. Maarfi F et al. A Study on Multiple Facets of Apolipoprotein A1 Milano. Appl Biochem Biotechnol. 2023 Jul