

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Apolipoprotein C-II/ApoC2 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2554A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived human Apolipoprotein C-II/ApoC2 Thr23-Glu101 Accession # P02655
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

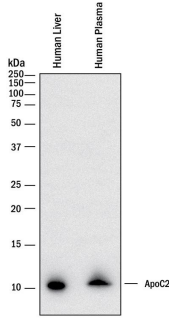
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Immunocytochemistry	3-25 µg/mL	See Below
Immunohistochemistry	0.3-25 µg/mL	See Below
ELISA	This antibody functions as an ELISA capture antibody when paired with Rabbit Anti-Human Apolipoprotein C-II/ApoC2 Monoclonal Antibody (Catalog # MAB44971). This product is intended for assay development on various assay platforms requiring antibody pairs.	

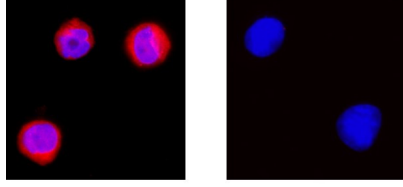
DATA

Western Blot



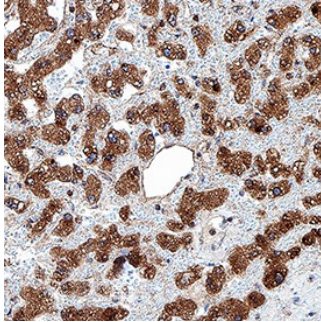
Detection of Human Apolipoprotein C-II/ApoC2 by Western Blot. Western blot shows lysates of human liver tissue and human plasma. PVDF membrane was probed with 0.5 µg/mL of Rabbit Anti-Human Apolipoprotein C-II/ApoC2 Monoclonal Antibody (Catalog # MAB4497) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Apolipoprotein C-II/ApoC2 at approximately 11 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



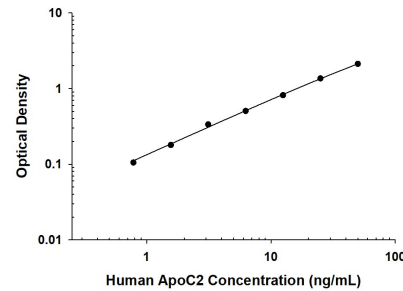
Apolipoprotein C-II/ApoC2 in THP-1 Human Cell Line. Apolipoprotein C-II/ApoC2 was detected in immersion fixed THP-1 human acute monocytic leukemia cell line (positive stain) and MCF-7 human breast cancer cell line (negative stain) using Rabbit Anti-Human Apolipoprotein C-II/ApoC2 Monoclonal Antibody (Catalog # MAB4497) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



Apolipoprotein C-II/ApoC2 in Human Liver. Apolipoprotein C-II/ApoC2 was detected in immersion fixed paraffin-embedded sections of human liver using Rabbit Anti-Human Apolipoprotein C-II/ApoC2 Monoclonal Antibody (Catalog # MAB4497) at 0.3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in hepatocytes. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

ELISA



Human Apolipoprotein C-II/ApoC2 ELISA Standard Curve. Recombinant Human Apolipoprotein C-II/ApoC2 protein was serially diluted 2-fold and captured by Rabbit Anti-Human Apolipoprotein C-II/ApoC2 Monoclonal Antibody (Catalog # MAB4497) coated on a Clear Polystyrene Microplate (Catalog # DY990). Rabbit Anti-Human Apolipoprotein C-II/ApoC2 Monoclonal Antibody (Catalog # MAB4497) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Apolipoprotein C2 (ApoC2/II) is a 8-9 kDa, secreted member of the Apolipoprotein C2 family of proteins. It is produced by hepatocytes and represents a major component of VLDL particles. It activates lipoprotein lipase and may self-associate to form amyloid-type fibrils. The human ApoC2 precursor is 101 amino acids (aa) in length. It contains a 22 amino acid (aa) signal sequence, followed by a 79 aa ProApoC2 that contains a lipid-binding region (aa 43-51) and an enzyme interaction site (aa 55-78). ProApoC2 represents >90% of circulating ApoC2. In human, limited proteolytic processing occurs with removal of the six aa prosegment (aa 23-28). This does not affect activity. Human ProApoC2 is 59% and 62% aa identical to mouse and rat ProApoC2, respectively.