

Apolipoprotein Types



PLAY PICMONIC

Ε

Ē

Apolipoproteins are proteins that bind to lipids to form lipoproteins, transporting them in the blood, cerebrospinal fluid, and lymph. ApoE binds to E verything Except LDL. ApoE can bind to chylomicron, chylomicron remnant, VLDL, IDL, and HDL.

Mediates Remnant Uptake

Mediator Remnant Uptake-tube

ApoE facilitates the uptake of chylomicron remnants and aids in their clearance inside the liver.

ΑI

(A) Apple (1) Wand

ApoAI is found only in HDL.

Activates LCAT

L-cat

ApoAI activates LCAT (Lecithin Cholesterol Acyltransferase), which helps in maturing HDL. It is responsible for the esterification of free cholesterol, allowing for a greater amount of cholesterol to be loaded onto the protein.

CII

(C) Cat (2) Tutu

ApoCII can be seen in chylomicron, VLDL, IDL, and HDL.

Catalyzes Cleavage

Cleave

ApoCII is a cofactor of lipoprotein lipase that catalyzes cleavage.

B48

(B) Bee (40) Ounce (8) Ball

ApoB48 binds to chylomicron and chylomicron remnant.



Mediates Chylomicron Secretion Into Lymphatics

Mediator Kite-mic into Lymph-limes

ApoB48 mediates chylomicron secretion from the GI cells into lymphatics, which then continue to the blood.

Only on Particles Originating from the Intestine

Intestinal-guy

 $\label{poble} \mbox{ApoB48 only can bind to particles originating from the intestine.}$

B100

(B) Bee (100) Dollar-bill

ApoB100 binds to VLDL, IDL, and LDL.

Binds LDL Receptor

Binding Ladybug-devil Receptor

B100 binds to the LDL receptor.

Only on Particles Originating from the Liver

Liver

ApoB100 only binds to particles originating from the liver.