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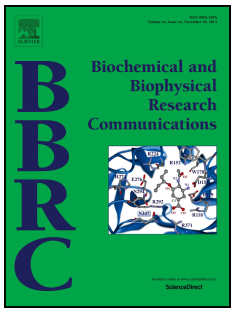

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Glucagon-like peptide-1 contributes to increases ABCA1 expression by downregulating miR-758 to regulate cholesterol homeostasis

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Abstract: Abnormal regulation of lipid metabolism is associated with type 2 diabetes mellitus (T2DM). GLP-1 as a new treatment for T2DM, has unique effects in modulating cholesterol homeostasis. However, the mechanism of this effect is largely missing. The aim of this study was to determine the effects of GLP-1 on cholesterol-induced lipotoxicity in hepatocytes and examine the underlying mechanisms. The cell viability was determined, and caspase-3 was used to detect the effects of GLP-1 on cholesterol-induced apoptosis. The alterations of miR-758 and ATP-binding cassette transporter A1 (ABCA1) resulting from cholesterol incubation or GLP-1 were detected by qRT-PCR and Western blot assays. Overexpression of