PLEKHH1 stimulates TNF production - and a link to lipid metabolism

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Effect of tumor necrosis factor-alpha on the metabolism of arachidonic acid in human neutrophils.

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Abstract

Although tumor necrosis factor-alpha (TNF-alpha) has been shown to induce marked changes in the physiology/pathophysiology of cells, little is known about the effects of this cytokine on cellular lipid metabolism. In this study we examined the effects of TNF-alpha on the metabolism of eicosatetraenoic acid (arachidonic acid, (20:4(n-6)) in human neutrophils. Pretreatment of neutrophils with TNF-alpha caused a rapid increase in the incorporation of [1-14C]20:4(n-6) substrate into cellular phosphatidylinositol and phosphatidic acid and a slower rise in the incorporation into

“These data collectively provide evidence that TNF-alpha specifically induces the turnover of neutrophil phosphatidylinositol, phosphatidylcholine and phosphatidylethanolamine”