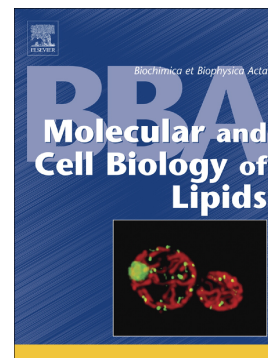


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Lipid droplets induced by secreted phospholipase A₂ and unsaturated fatty acids protect breast cancer cells from nutrient and lipotoxic stress

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Abbreviations: AA, arachidonic acid; AMPK, AMP-dependent protein kinase; ATGL, adipose trygliceride lipase; cPLA₂α, cytosolic group IVA PLA₂; CPT1, carnitine O-palmitoyltransferase 1; CPT1A, the liver isoform of CPT1; DGAT1, diacylglycerol acyltransferase 1; DHA, docosahexaenoic acid; EPA, eicosapentaenoic acid; FA, fatty acid; FAF, fatty acid-free; HBSS, Hanks' balanced salt solution; hGX sPLA₂, human group X sPLA₂; LA, linoleic acid; LD, lipid droplet; MMP, mitochondrial membrane potential; NAC, N-acetyl-L-cysteine; OA, oleic acid; PC, phosphatidylcholine; PLA₂, phospholipase A₂; PPAR, peroxisome proliferator-activated receptor; PUFA, polyunsaturated fatty acid; SCD-1, stearoyl-CoA desaturase 1; sPLA₂, secreted phospholipase A₂; SREBP-1, sterol regulatory element-binding protein-1; TAG, triacylglycerol; TNBC, triple-negative breast cancer; TMRM, tetramethylrhodamine, methyl ester; VLCAD, very long-chain acyl-CoA dehydrogenase.

Highlights

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