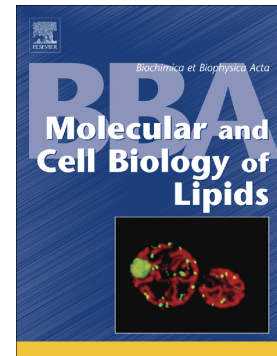


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**REAL TIME QUANTITATIVE ANALYSIS OF LIPID STORAGE AND LIPOLYSIS PATHWAYS BY CONFOCAL SPECTRAL IMAGING OF INTRACELLULAR MICROPOLARITY.**

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**ABBREVIATIONS**

ACT-1, Acyl transfer enzyme 1; AGPAT, 1-acylglycerol-3-phosphate O-acyltransferase; ATAGL, Adipose triglyceride lipase; CARS, coherent anti-Stokes Raman scattering; DAG, diacylglycerol; DGAT, Diacylglycerol acyl transferase; FCS, fetal calf serum; FFA, Free Fatty acids; GPAT, glycerophosphate acyltransferase; HP, hyper-polar; HSL hormone-sensitive lipase; LD, lipid droplets; LPA, lysophosphatidic acid; MGL, monoacylglycerol lipase; NP, non-polar; P, polar; PA, palmitic acid; PAP, phosphatidic acid phosphatase; PhA, Phosphatidic acid; SCD1, Stearoyl-CoA desaturase-1; SHG, second harmonic generation; SRS Stimulated Raman Scattering; TAG, triacylglycerols; THG, third harmonic generation.

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