

Supplementary material

Carbon allocation in *Rhodococcus jostii* RHA1 in response to disruption and over-expression of *nlpR* regulatory gene, based on ^{13}C -labelling analysis

Martín A. Hernández¹, Gerd Gleixner^{2*}, Dirk Sachse^{3, 4}, Héctor M. Alvarez^{1*}

¹Instituto de Biociencias de la Patagonia - Consejo Nacional de Investigaciones Científicas y Técnicas, Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia San Juan Bosco, Comodoro Rivadavia, Chubut, Argentina.

²Department of Biogeochemical Processes, Max Planck Institute for Biogeochemistry Jena, Germany.

³GFZ German Research Centre for Geosciences, Section 5.1 Geomorphology, Potsdam, Germany

⁴Institute of Earth and Environmental Science, University of Potsdam, Potsdam, Germany.

Correspondence:

Héctor M. Alvarez: halvarez@unpata.edu.ar

Gerd Gleixner: ggleix@bgc-jena.mpg.de

Supplementary figures legends

Figure S1: Qualitative TLC analysis of extracted lipid fractions from **1.** RHA1 WT, **2.** RHA1::*nlpR*, **3.** RHA1pTipQC2 and **4.** RHA1 pTipQC2/*nlpR*. **(A)** Analysis of neutral lipids (NL), glycolipids (GL) and phospholipids (PL) obtained by solid-phase extraction (SPE) column chromatography with unmodified silica stationary phase. **(B)** Analysis of F1 to F5 obtained by solid-phase extraction (SPE) column chromatography with amino propyl stationary phase. Solvents used for elution of several fractions are indicated. **(C)** Fractionation steps of F3 of each strain for TAG and DAG separation.

Figure S2: Cellular growth profiles and total glucose (unlabelled+labelled) consumption of analyzed strains of this study. The point where cells were harvested for ^{13}C analysis is indicated by an arrow.

Figure S3: Total ^{13}C fatty acid content measured by GC-IRMS in **(A)** Neutral lipids, **(B)** Phospholipids, **(C)** triacylglycerols, **(D)** diacylglycerols and **E)** free fatty acids of RHA1 derivative strains. Values are expressed as % of ^{13}C content by cellular dry weight (CDW).

Figure S4: Fatty profiles and ^{13}C fatty acid absolute concentration measured by GC-IRMS in **(A)** Neutral lipids, **(B)** Phospholipids, **(C)** triacylglycerols, **(D)** diacylglycerols and **(E)** free fatty acids of RHA1 derivative strains.

Fig. S1:

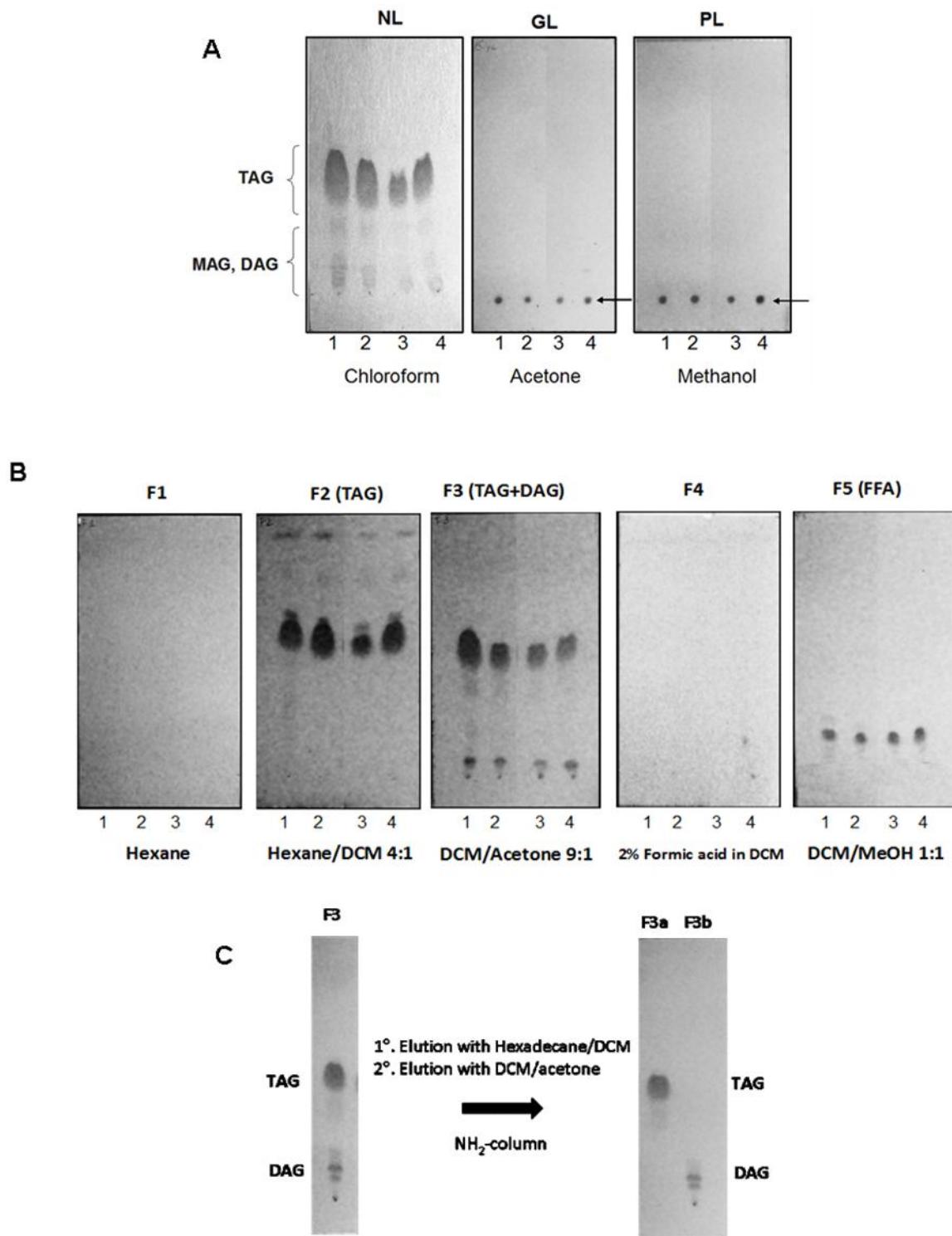


Fig. S2:

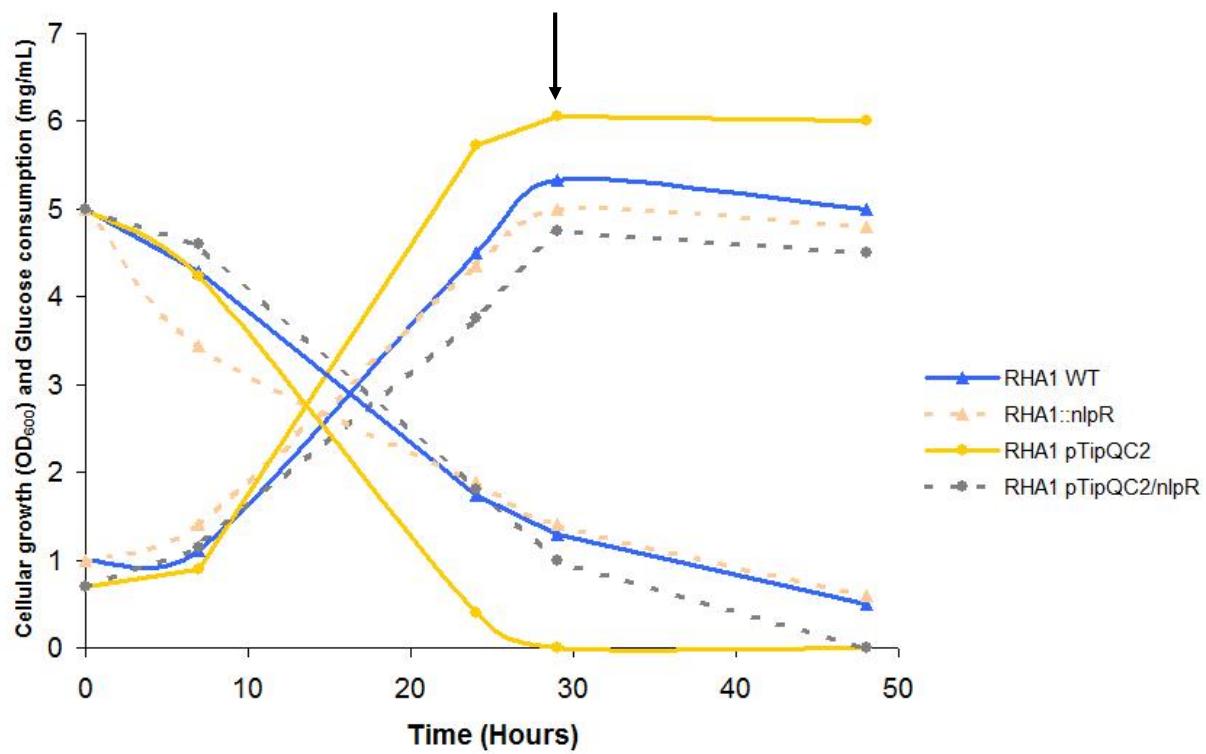


Fig. S3:

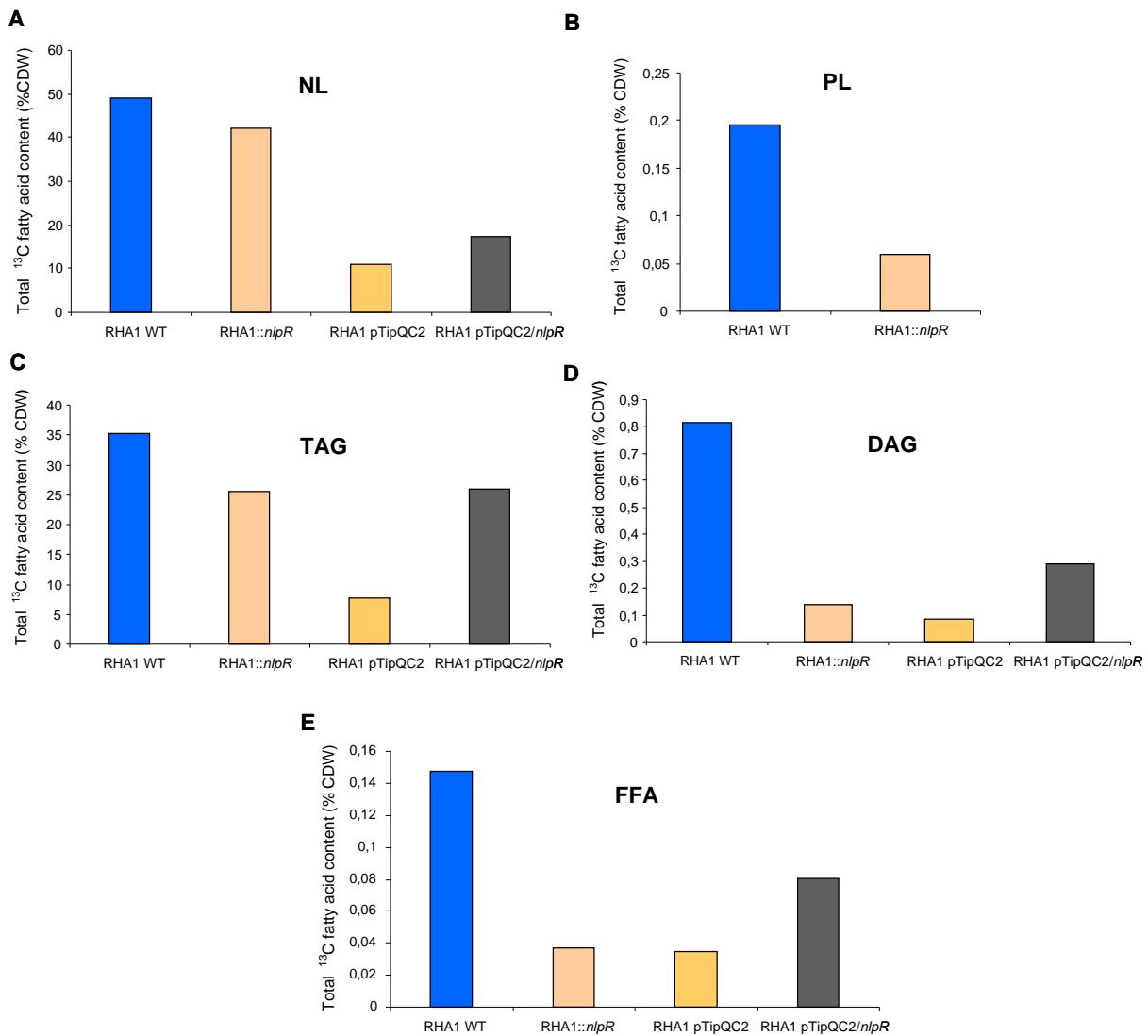


Fig. S4:

