Please, find in this document the measured IPTG distribution profiles of the nine fermentations induced with IPTG when 20 g DCW·L-1 were achieved.



Figure **Error! No hi ha text de l'estil especificat en el document.** 1 IPTG distribution profiles in medium in terms of amount (μ mol) along with the biomass evolution (A) and in terms of concentration (μ M) (B) after induction of RhuA overexpression with 8 μ M IPTG. Solid line indicates the fitted curve. Fermentation code: FB1



Figure Error! No hi ha text de l'estil especificat en el document..2 IPTG distribution profiles inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production (A) and in terms of concentration (μ M) (B) after induction of RhuA overexpression with 8 μ M IPTG. Fermentation code: FB1



Figure Error! No hi ha text de l'estil especificat en el document..**3** Calculated IPTG distribution profiles inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with



the specific RhuA production (A) and in terms of concentration (μ M) (B) after induction of RhuA overexpression with 8 μ M IPTG. Fermentation code: FB1

Figure Error! No hi ha text de l'estil especificat en el document..**4** IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 10 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production, (D) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB2



Figure Error! No hi ha text de l'estil especificat en el document..**5** IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 20 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production, (D) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB3



Figure Error! No hi ha text de l'estil especificat en el document..**6** IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 40 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production, (D) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB4



Figure Error! No hi ha text de l'estil especificat en el document..7 IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 54 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (D) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB5. Note: *Intracellular samples could not be analyzed and some of the medium samples were missed*.



Figure Error! No hi ha text de l'estil especificat en el document..**8** IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 100 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production, (D) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB6



Figure Error! No hi ha text de l'estil especificat en el document..**9** IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 200 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production, (D) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB7



Figure Error! No hi ha text de l'estil especificat en el document..**10** IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 450 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production, (D) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB8



Figure Error! No hi ha text de l'estil especificat en el document.**.11** IPTG distribution profiles along time after induction of RhuA overexpression with IPTG 1000 μ M. (A) in medium in terms of amount (μ mol) along with the biomass evolution, (B) in terms of concentration (μ M) and the obtained fitted curve, (C) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production, (D) inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of amount (μ mol·g⁻¹DCW) along with the specific RhuA production and (F) calculated inside the biomass in terms of concentration (μ M). Fermentation code: FB9