

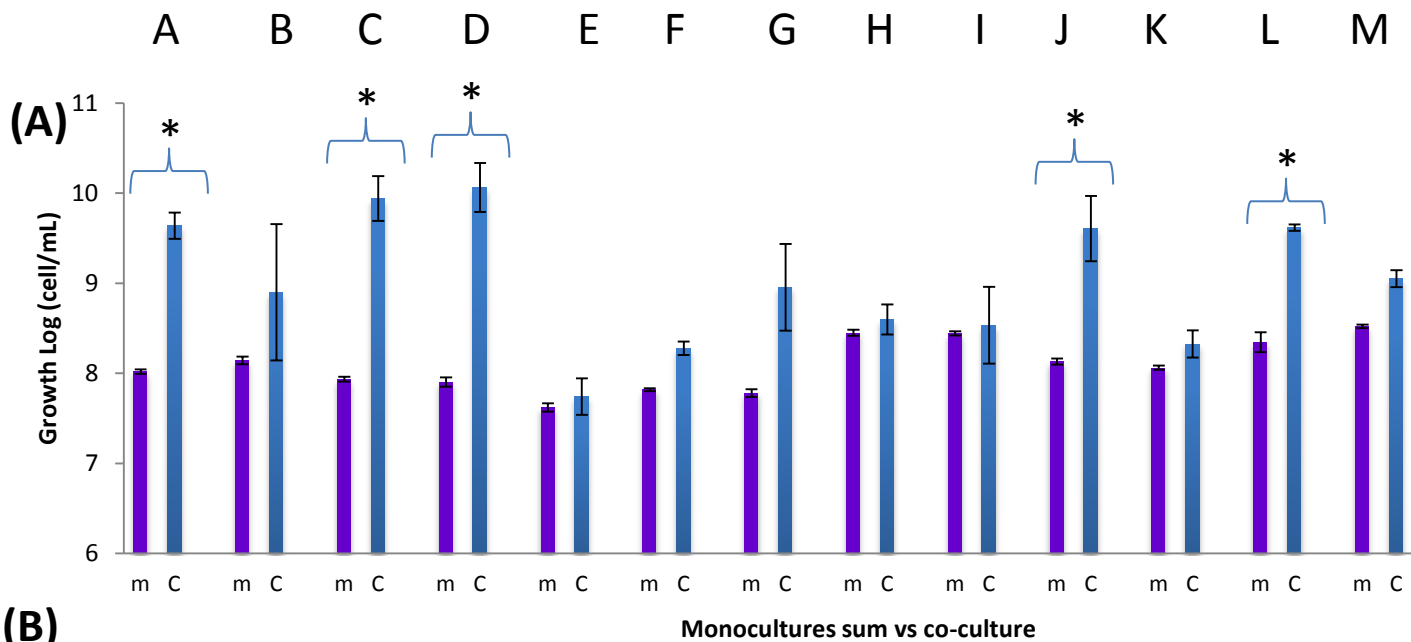
## *Supplementary Material*

### **Bacterial synergism in lignocellulose biomass degradation - complementary roles of degraders as influenced by complexity of the carbon source**

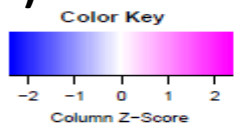
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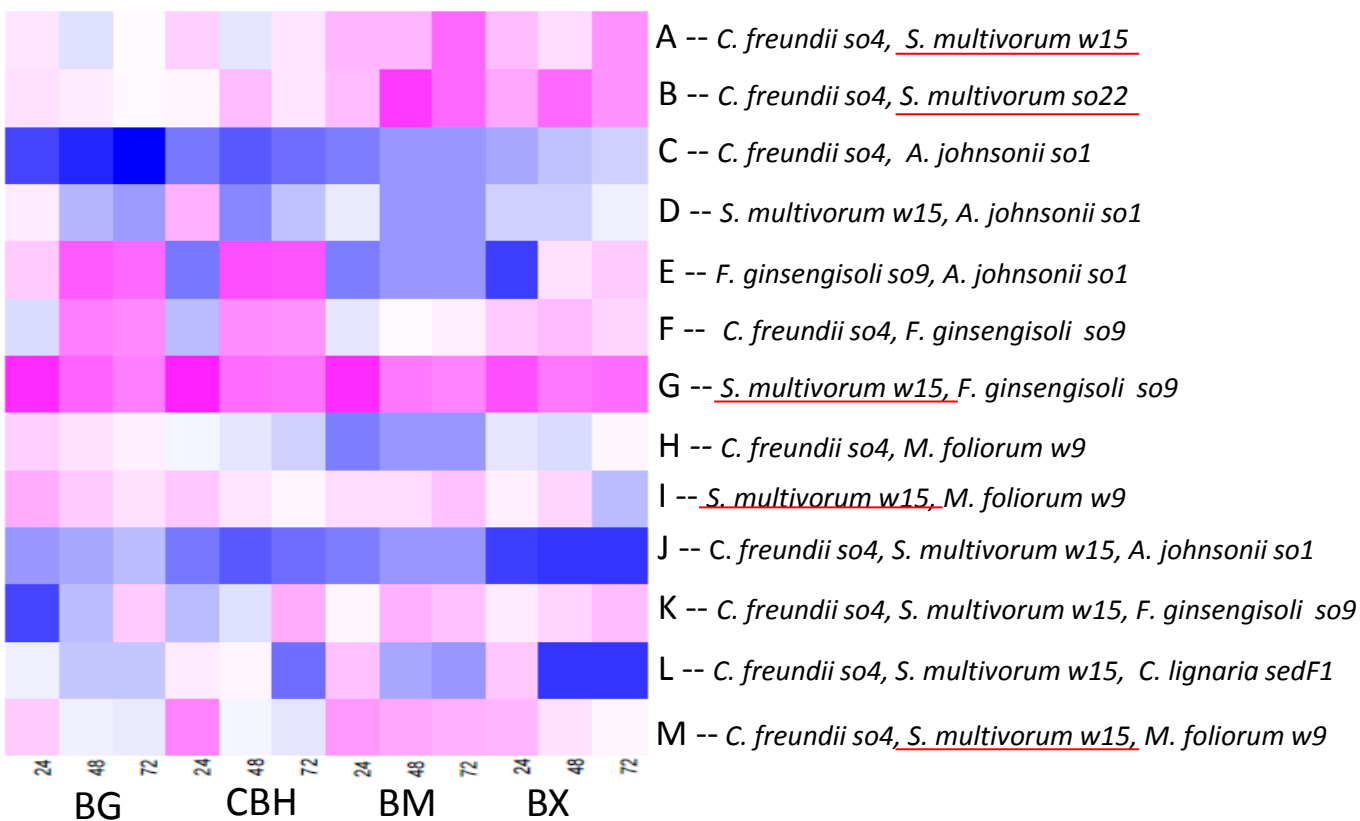
# Supplementary Figure 1



**(B)**

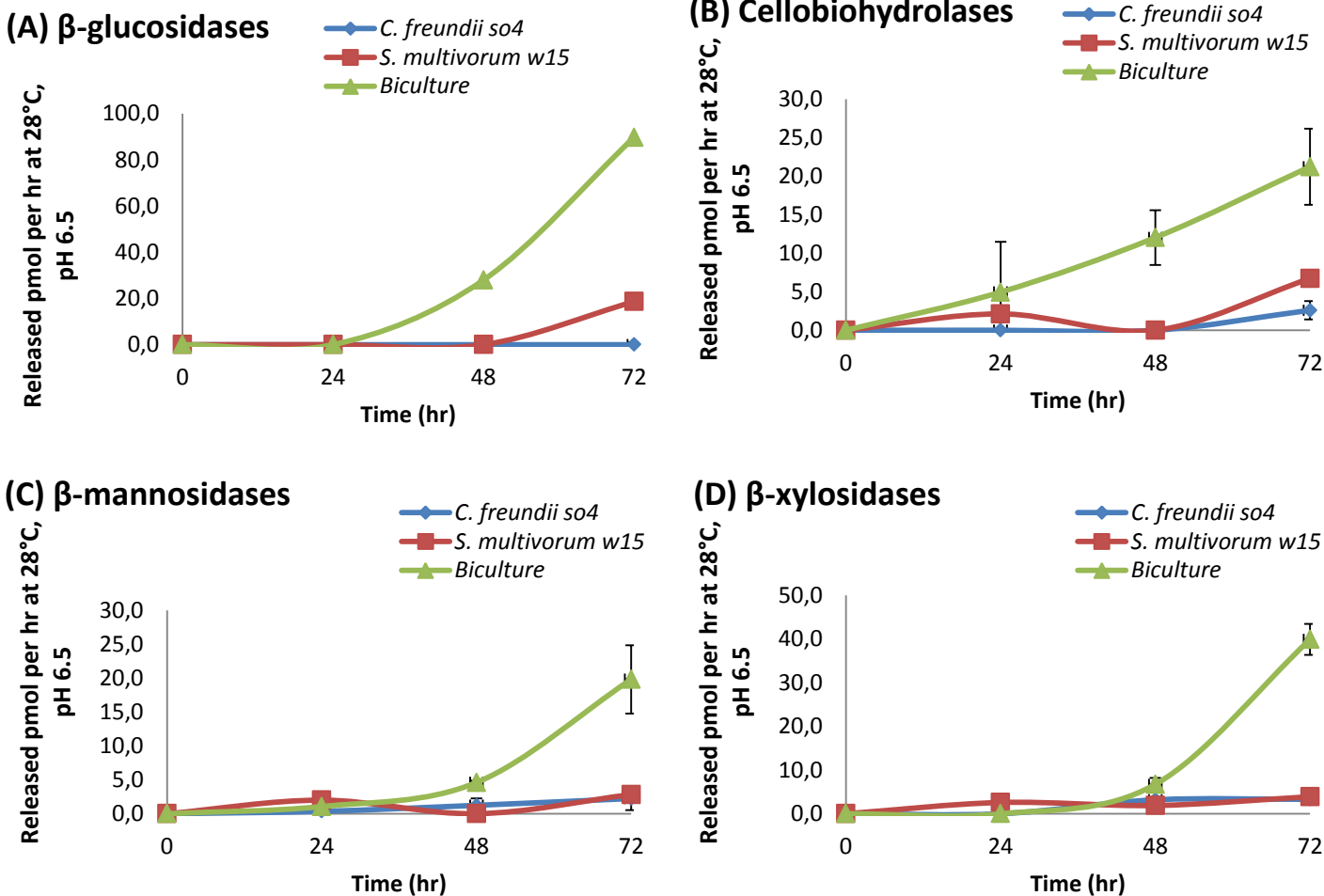


## Co-culture → Composition



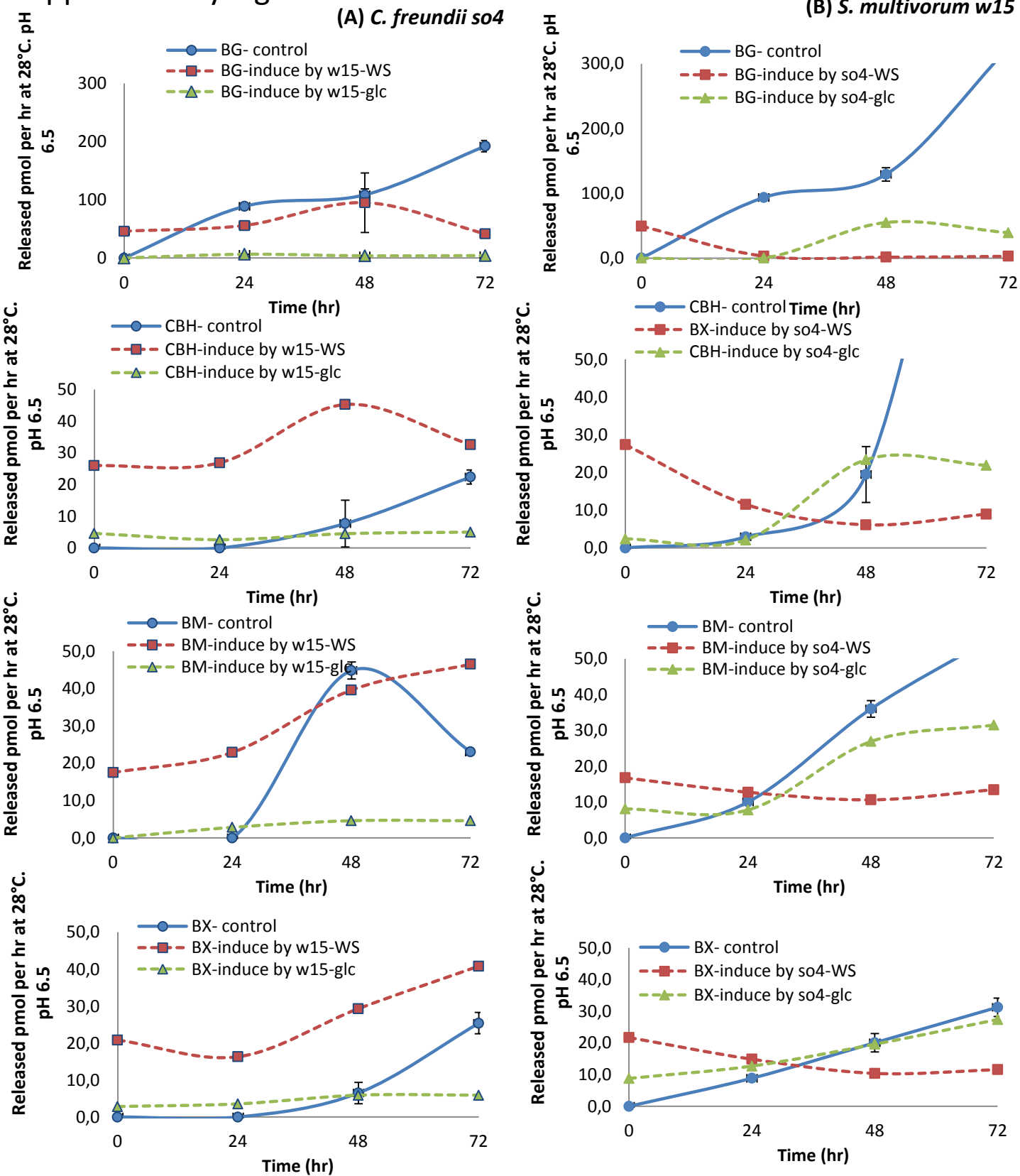
In (A) is shown the sum of growth from monocultures (purple) and co-cultures (blue), significant differences between the sum of monocultures and co-culture, t-test ( $P < 0.05$ ). Standard deviation correspond to triplicate. In (B) heatmap that displayed co-culture average (from triplicates) and normalized enzymatic activities BG:  $\beta$ -glucosidases, CBH: cellobiohydrolases, BM:  $\beta$ -mannosidases and BX:  $\beta$ -xylosidases, along the incubation time (24-72h), relative enzymatic activity reported in nmol MUB per h at 28°C, pH 6.8.

# Supplementary Figure 2



**S2 Figure.** Enzymatic activities from *S. multivorum* w15 and *C. freundii* so4 growing in synthetic recalcitrant biomass. (A)  $\beta$ -glucosidases, (B) cellobiohydrolases, (C)  $\beta$ -mannosidases, (D)  $\beta$ -xylosidases enzymatic activity from monocultures *S. multivorum* w15 (red) and *C. freundii* so4 (blue) and the co-culture (w15, so4) (green). Standard deviation correspond to triplicate systems.

# Supplementary Figure 3



**S3 Figure.** Enzymatic activities from induction experiment.  $\beta$ -glucosidases, cellobiohydrolases,  $\beta$ -mannosidases and  $\beta$ -xylosidases activities (secretome) from (A) *C. freundii* so4 induced by supernatant from *S. multivorum* w15 and (B) *S. multivorum* w15 induce by supernatant of *C. freundii* so4. The donor strains was grown on glucose (green), grown on RWS (red). In blue the each strains grown on RWS as a control. Standard deviation correspond to triplicate systems.