Microorganisms

Therapeutic effects of *Zymomonas mobilis* in experimental DSS-induced colitis mouse model

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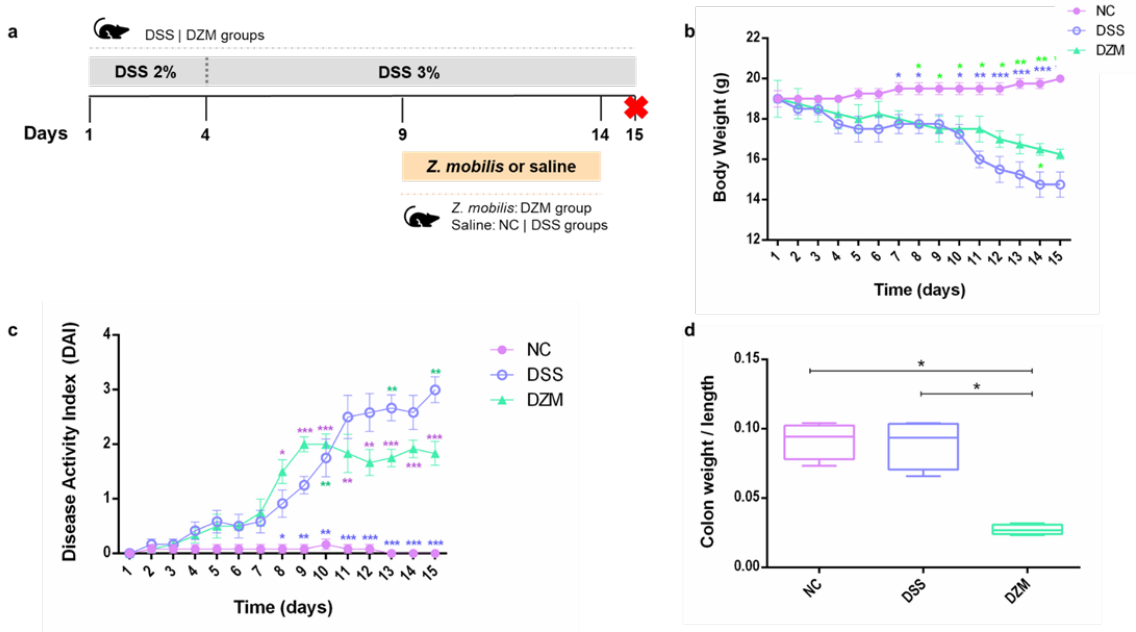

Figure S1. Pilot experimental analysis of oral administration of *Z. mobilis* and its effects in DSS induced colitis in mice. **a**. Animal experimental design: groups of four female C57BL/6 mice were used. Those from DSS and DZM groups ingested filtered water containing 2% DSS in the first 4 days for colitis induction, followed by 3% until the end of experiment. Throughout the experiment, the animals from DZM group were gavaged with *Z. mobilis*, while the NC and DSS groups, were gavaged with saline. On day 15 all animals were euthanized (represented by the red X). **b**. Average weight (g) of the animals was measured

during the fifteen days of experiment. Data are shown as the mean ± SEM and each asterisk color represents the group for which there was a significant statistical difference. Statistical analysis was performed using one-way ANOVA with Tukey test, * $p < 0.05$ and ** $p < 0.01$. **c**. Disease Activity Index (DAI) calculated over the entire period of the experiment. Data are shown as the mean ± SEM, and each asterisk color represents the group for which there was a significant statistical difference. Statistical analysis was performed using one-way ANOVA with the Tukey test, * $p < 0.05$ and ** $p < 0.01$. **d**. Colon weight/length ratio (cm) after euthanasia. Data are shown as the median and *SD*. Statistical analysis was performed using Mann-Whitney test, * $p < 0.05$ and ** $p < 0.01$.

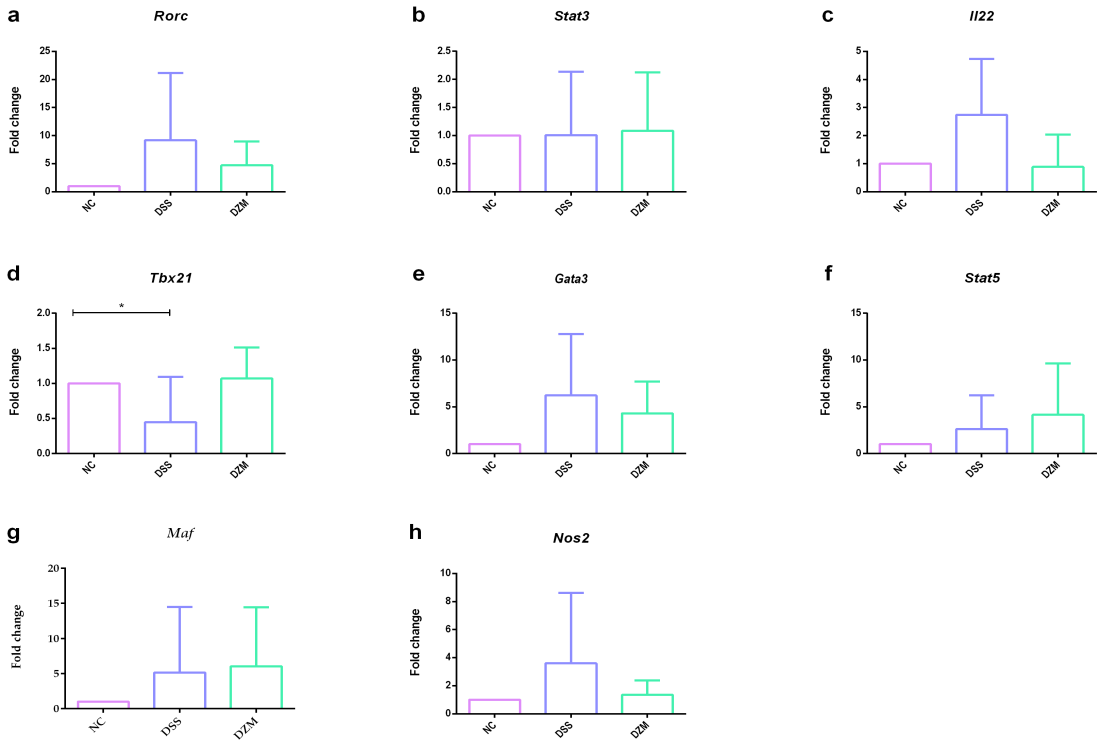

Figure S2. Colonic mRNA expression by real time PCR analysis. Relative gene expression: **a**. *Rorc*; **b**. *Stat3*; **c**. *Il22*; **d**. *Tbx21*; **e**. *Gata3*; **f**. *Stat5*; **g**. *Maf*; **h**. *Nos2*. Data are shown as the mean and SD.

Table S1. Primers used for real time qPCR analysis.

Target	Sequence
B2m	F: TGCTATCCAGAAAACCCCTCA R:TTTCAATGTGAGGCGGGTGG
Foxp3	F: ACTCGCATGTTCGCCTACTT R: AGGGATTGGAGCACTTGTTG
Tgfb	F: CTGACGTCACTGGAGTTGTACGG R: GGTTCATGTCATGGATGGTGC
Il10	F: GGTTGCCAAGCCTTATCGGA R: GAGAAATCGATGACAGCGCC
Ifnγ	F: AAGTTTGAGGTCAACAACCCAC R: AATCTCTTCCCCACCCCGAA
Il5	F: F: CTCTGTTGACAAGCAATGAGACG R: TCTTCAGTATGTCTAGCCCCTG
Stat6	F: GGATTCAGATTTGGAAGCGGC R: AATTTCCACCAGGCTTTCACAC
Tnfα	F: GTAGCCCACGTCGTAGCAAA R: ACAAGGTACAACCCATCGGC
Il6	F: GCCTTCTTGGGACTGATGCT R: TGCCATTGCACAACTCTTTTCT
Il17	F: TTTAACTCCCTTGGCGCAAAA R: CTTTCCCTCCGCATTGACAC
Rorc	F: TGCAAGACTCATCGACAAGG R: AGGGGATTCAACATCAGTGC
Il1β	F: TGCCACCTTTTGACAGTGATG R: TGTGCTGCTGCGAGATTTGA
Il22	F: GCTCAGCTCCTGTCACATCA R: CAGTTCCCCAATCGCCTTGA
Stat3	F: CTGCCCCGTACCTGAAGAC R: AACGTGAGCGACTCAAACTG
Gata3	F: TTTACCCTCCGGCTTCATCCTCCT R: TGCACCTGATACTTGAGGCACTCT
Stat5	F: CACTCCTGTACTTGGTTCGTCA R: CCAGGTCAAACTCGCCATCT
Tbx21	F: TCAGGACTAGGCGAAGGAGA R: GCCTTCGGTTTCCTTATCAA
Nos2	F: GGTGAAGGGACTGAGCTGTT R: ACGTTCTCCGTTCTCTTGCAG
Maf	F: GGATGGCTTCAGAACTGGCA R: AACATATTCCATGGCCAGGG
Muc3	F: CGTGGTCAACTGCGAGAATGG R: CGGCTCTATCTCTACGCTCTC
Ocln	F: ATGACATGTATGGCGGAGAG R: ATAGCCTCTGTCCCAAGCAA