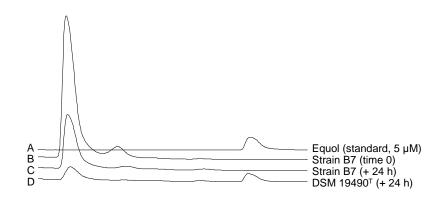


**Supplementary Fig. S1.** Comparative polar lipid analysis of (a) strain B7<sup>T</sup> and (b) *Enterorhabdus mucosicola* DSM 19490<sup>T</sup>. Abbreviations: DPG, diphosphatidylglycerol; GL, glycolipids; L, unidentified lipid; PG, phosphatidylglycerol; PL, phospholipids.



**Supplementary Fig. S2.** Reversed-phase HPLC analysis of daidzein and equol concentrations in (a) equol standard, (b) daidzein with strain B7<sup>T</sup> at 0 h incubation, (c) daidzein with strain B7<sup>T</sup> at 24 h incubation and (d) daidzein with *Enterorhabdus mucosicola* DSM 19490<sup>T</sup> (positive control). The 63% decrease in daidzein concentration observed for (c) was also observed with the negative bacteria control (not shown). The positive control demonstrated a 92% decrease in daidzein concentration and the production of equol.