



**Figure S4.** Differences in the gut microbiota composition between basal phase and E82 phase at phylum, class and order level. Values are the mean  $\pm$  S.E.M. The statistically significant differences between each phase were tested by non-parametric Kruskal-Wallis test. \*  $P < 0.05$ . (a) Phylum level; (b) Class level; (c) Order level.