

Description of Additional Supplementary Files

File name: Supplementary Data 1.

Description: Protein Binding Microarray data from ref (24). Each value is a Z-score for the indicated probe and protein. The sequences most similar to the kappaB site EMSA probe are listed on the right.

File name: Supplementary Data 2.

Description: Sheet 1 is all 1348 genes that are expressed in the same way as NF- κ B across the three life stages of *Capsaspora*. Sheet 2 lists the 389 annotated genes from the 1348 genes shown in sheet 1, and their corresponding UniProt IDs.

File name: Supplementary Data 3.

Description: PBM-generated Co-NF- κ B motif search results (Sheet 2) from MEME-FIMO and total Co-NF- κ B motif sites (Sheet 3). Also a list of the 500 bp Page 7 of 21 upstream sequences of the 1348 genes that express in the same pattern as NF- κ B over the three life stages (Sheet 4).

File name: Supplementary Data 4.

Description: RHD sequences of organisms used for Maximum Likelihood phylogenetic analysis.

File name: Supplementary Data 5.

Description: Supplementary Data 5. Raw data for information in Figs. 2e, 2f, 5c, 6e, and 6f.