Fig. 4: Response of Candida to ingestion by neutrophils. (A) and (B) In Candida the response to ingestion by neutrophils is similar to that engendered by amino acid deprivation. (A) Candida was cultured with neutrophils in RPMI containing 10% fresh human serum for 60 (5) or 80 (4) minutes or in minimal medium for 40 (3), 60 (1) or 80 min. (2). Amino acid and nucleic acid biosynthetic genes were selected for cluster analysis for illustration purposes. ADE and URA genes serve as controls (*). Experiments were clustered using Cluster and TreeView. (B) Candida was cultured in minimal medium with (+) or without (-) amino acids (upper panel) or in RPMI containing 10% fresh human serum with (+) or without (-) neutrophils (lower panel) for 60 minutes. Candida mRNA was subjected to Northern analysis, using probes for the genes indicated. Ethidium bromide staining of ribosomal RNA to control for loading is shown in the lower panels. (C) Candida does not filament inside neutrophils. Yeast form Candida cells were cultured with monocytes (upper panel) or neutrophils (lower panel) in RPMI containing 10% fresh human serum for 1 hour.