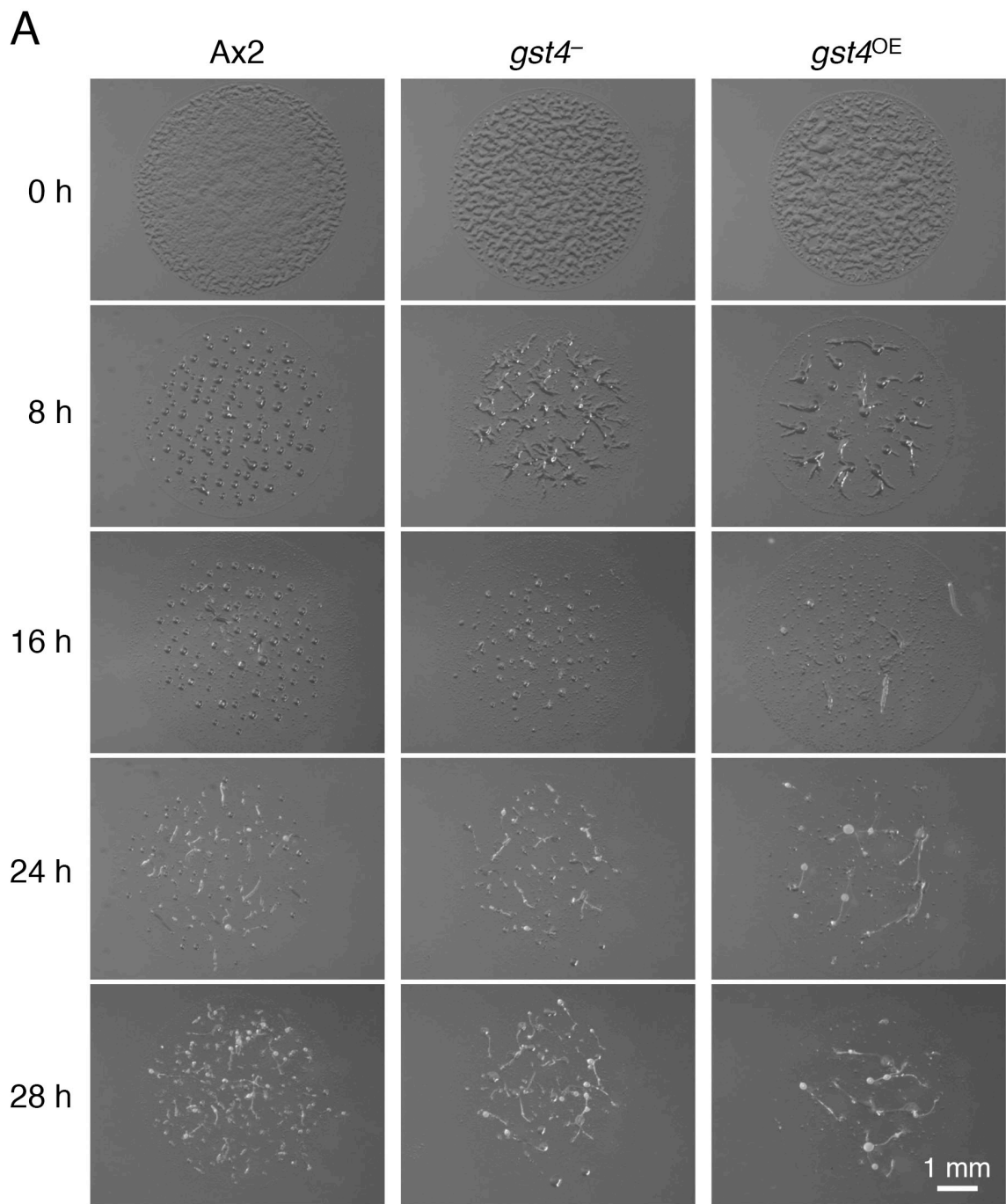
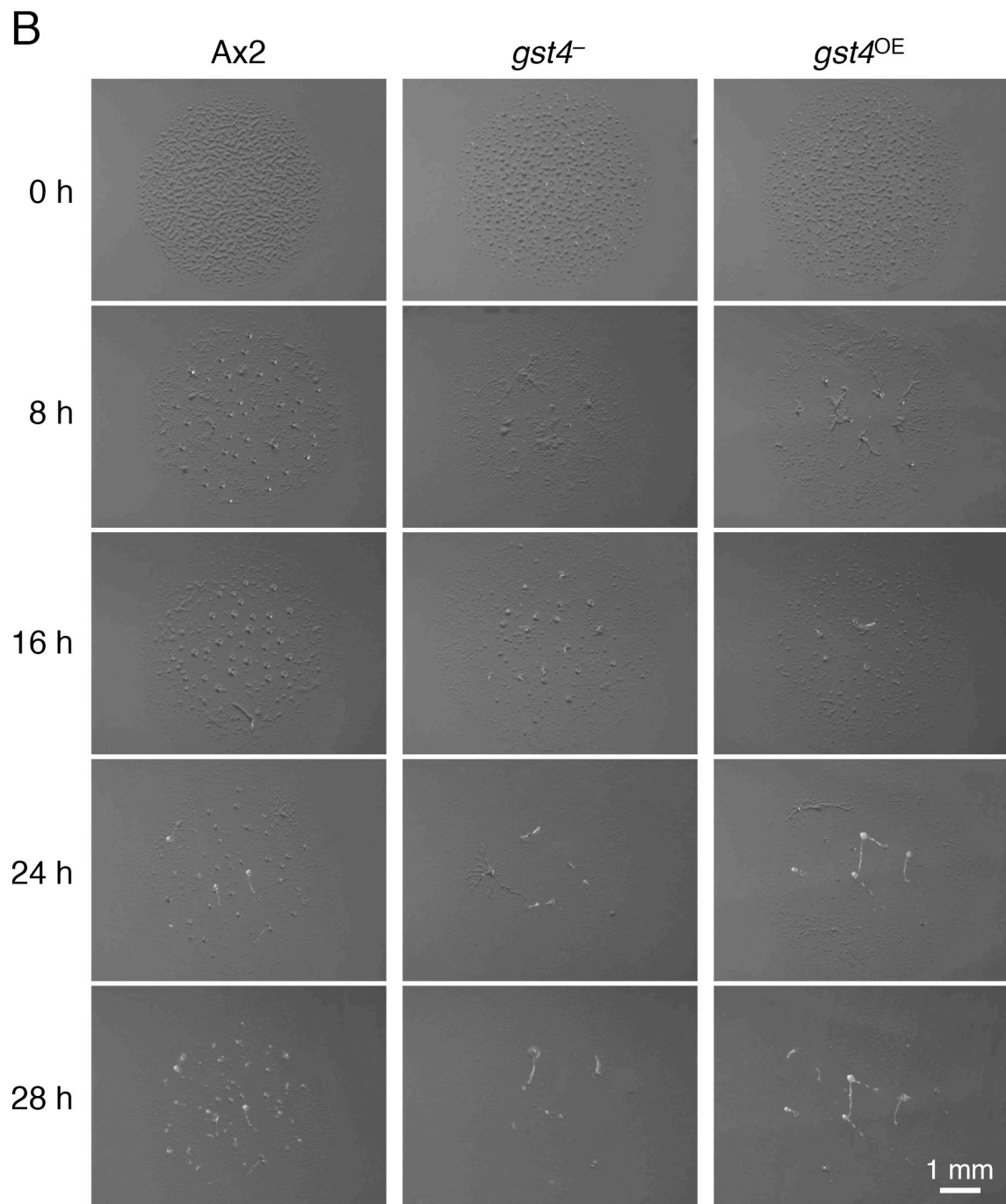


## Supplementary Materials

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1 ATGTCTCATTTAACTCCAAAACCAAACGTTTTAAATGTATATGGAGCAGGAACACCAAACCTTTGTAAAAG 70
71 TTCAAATTTTATTAGAAGAAAAAACATTCTCATGTTTACCATAAAATTGATTTTTCAAAAATGAACA 140
141 ATTTGATCCAGAATTTTAAAGTTTTACCAAATAATAAAATCCAGCAATTGTCGATAATACAGTTGAA 210
211 CCAAATGGTATTAGTGATTTTAAAAGTGCAGCAATTTAATGTACTTATCTGAAAAACATCAATTCACCG 280
281 ATCTTTATGCAGATTTTAAAAC TGACCAGCATTACATGCCAAACATTTAGAATTTTATTCTTCCAAAT 350
351 GAGTGGTGTTGGCCCAATGACAGGTCAATTAGGTTGGTTCCTTCGTCAACCAGAACCAAAGAATACTCAA 420
421 GCAATTGAAAGATATTCTGAAGAAGTAAAAGATTATATAGAGTTTTAGATAAAATACTCTCAACTAATA 490
491 CTTGGGTAGCCGGTGAACAATATAGTATTGCTGATATCAGTCTTTTAGGTTGGGCTTTATATTTCTTAAA 560
561 AGGTTATTATGATGATCATATCACCAGAGAACAATCCCAAATGTTTATCGTTGGTTAGATTTAGCTGCT 630
631 AAAAGACCAGCAATCATTTAAAGTTTTAGAAACAATCAACCAAACAAAAATAA 684
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**Fig. 1.** Open reading frame of *gst4* gene.





**Fig. 2.** Developmental phenotypes of *gst4* mutants at low cell densities ( $<5 \times 10^6$  cells/cm<sup>2</sup>). *Ax2*, *gst4<sup>-</sup>*, and *gst4<sup>OE</sup>* cells were grown in an axenic medium, and starved cells were plated on agar at  $1 \times 10^6$  cells/cm<sup>2</sup> (**A**) or  $2 \times 10^5$  cells/cm<sup>2</sup> (**B**) and allowed to form fruiting bodies. The cells were evaluated at the indicated time points, and representative photos are shown. Bar=1 mm.