tip_slug_up (12) 20 20 strain AX4 strain rapgapB - tgrB1 tgrB1rapgapB ⁻ tgrC1 ⁻ AX4 L846F B1L846F tgrC1 rapgapB ⁻ 16 16 hours of AX4 development 12 -12 -8 -8 4 -4 + 0 0 4 8 12 16 20 8 12 16 20 0

hours of mutant development