Fig. 1. *HGC1* gene deletion. (A) A schematic description of the gene deletion products. The entire open-reading frame of the two copies of *HGC1* was sequentially replaced by those of *ARG4* and *HIS1* yielding gene deletion products *hgc1Δ::ARG4* and *hgc1Δ::HIS1* respectively. The first nucleotide of *HGC1* coding sequence is designated as position 1. The cleavage sites for the restriction enzymes *Xba*I (*Xb*) and *Apa*I (*Ap*) are shown. (B) Re-integration of a copy of *HGC1* into the *hgc1Δ* mutant (*hgc1Δ::ARG4/ hgc1Δ::HIS1*). A genomic DNA fragment containing *HGC1* gene and ~1000-bp 5' and 1700-bp 3' flanking regions was cloned in the plasmid Clp10. This plasmid was linearized by cleavage at the unique *Xba*I site within the promoter region and integrated into one of the *HGC1* promoter regions (in the case shown it is the locus where *HGC1* was replaced with *HIS1*) in the *hgc1Δ* mutant. (C) Southern blot verification of *HGC1* deletion mutants. Strains used are: lane 1, BWP17; lane 2, *HGC1/hgc1Δ::ARG4*; lane 3, *hgc1Δ::ARG4/ hgc1Δ::HIS1*; lane 4, *hgc1Δ::ARG4/ hgc1Δ::HIS* containing a re-integrated copy of *HGC1*. The probe used corresponds to the region of nucleotides 3300 to 3908 as described in (A).