



**Supplemental Figure S5.** *HvHAK1*-expressing yeast cells lacking the PPZ1 phosphatase display an enhanced growth capacity at low K<sup>+</sup> concentrations. Expression of *HvHAK1* into the *p424* vector does not restore the growth capacity of DBY646 *trk1Δ trk2Δ* yeast cells at low K<sup>+</sup> supplies. This capacity is recovered in cells also carrying a disruption of the *PPZ1* gen. Serial dilutions of *trk1Δtrk2Δ* and *trk1Δtrk2Δppz1Δ* yeast cells transformed with the empty *p424* vector, or the same vector containing *HvHAK1* were performed in AP medium without K<sup>+</sup> addition or at 50 mM KCl.