



Figure S3. The *Cobra* gene family. This family of GPI-anchored proteins is thought to function in cellulose deposition and orientation (Schindelman et al., 2001, Roudier et al., 2002). Whereas the *cobra1* mutant is defective in cellulose synthesis and microfibril orientation in roots (Hauser et al., 1995; Roudier et al., 2005), mutations in *COBL4* result in cellulose deficiencies in secondary walls Brown et al., 2005). Mutations in orthologs of the rice *Bc1* (CM Kim et al., 2007) and maize *Bk2* (Ching et al., 2006; Sindhu et al., 2007) also result in secondary wall cellulose deficiencies. Color scheme for expression is described in the legend of Figure 1.