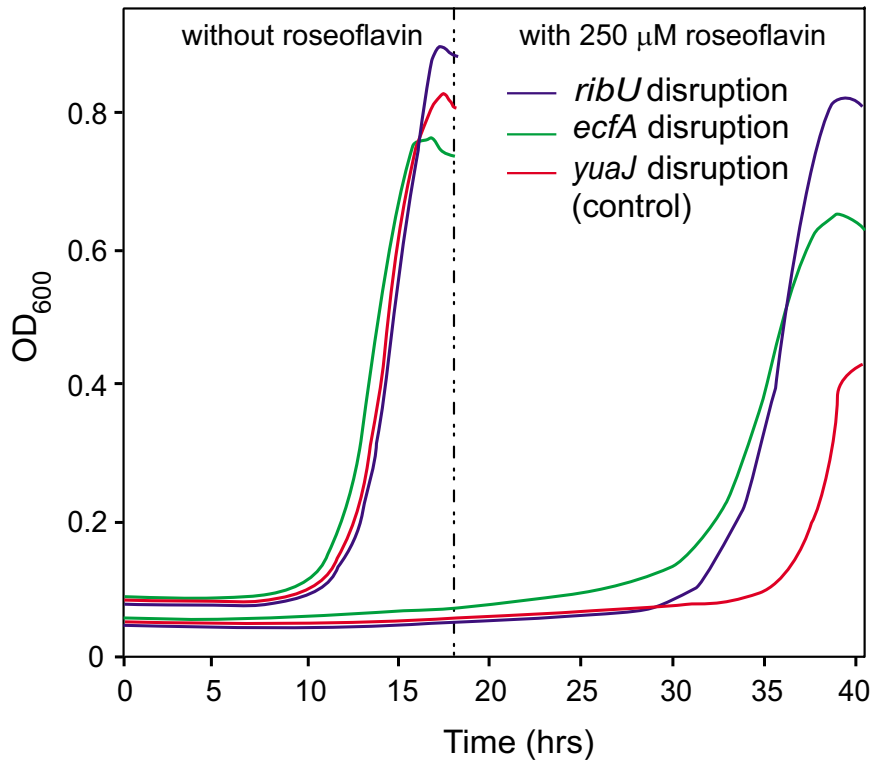


Supplementary Figure S1. Growth inhibition data for *B. subtilis* *ribU*, *ecfT*, and *yuaJ* disruption strains in the presence of roseoflavin, a toxic analog of riboflavin. The *yuaJ* gene encoding thiamine transporter ThiT served as a control.



Supplementary Figure S2. Modular architecture of energy-coupling factor (ECF) transporters.

ECF transporters consist of a substrate-capture protein ('S') and a dedicated (left-hand part) or a shared (right-hand part) energy-coupling module composed of two ABC ATPases ('A') and a conserved transmembrane protein ('T'). Prokaryotes contain up to 22 different ECF systems. The shared use of a transporter module among many different systems was previously unprecedented and is predominantly found in Gram-positive bacteria including many human pathogens.

