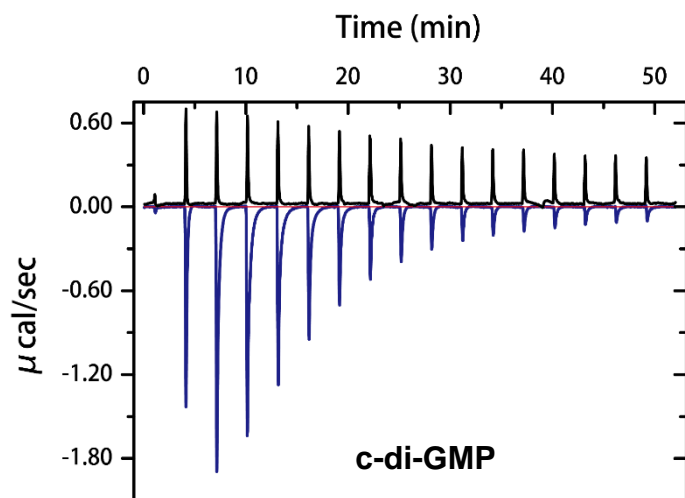
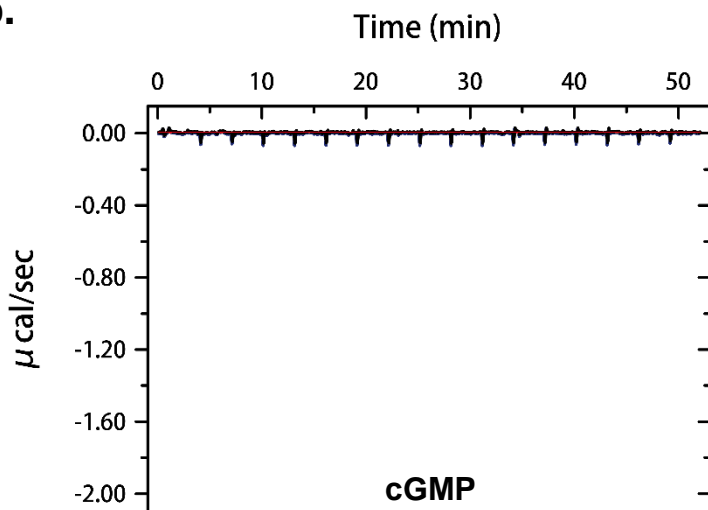
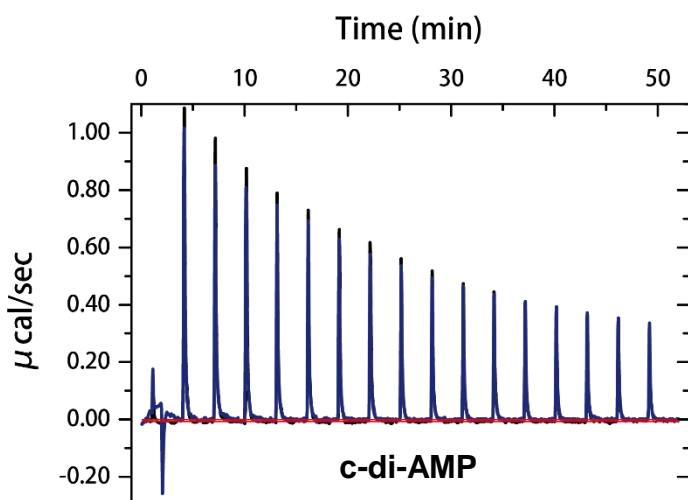
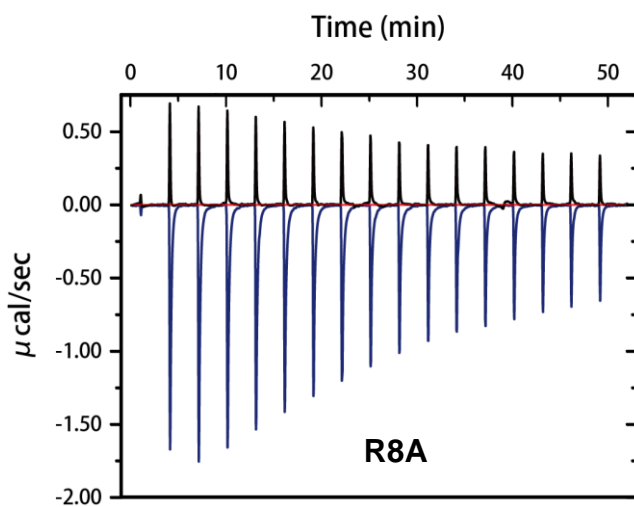
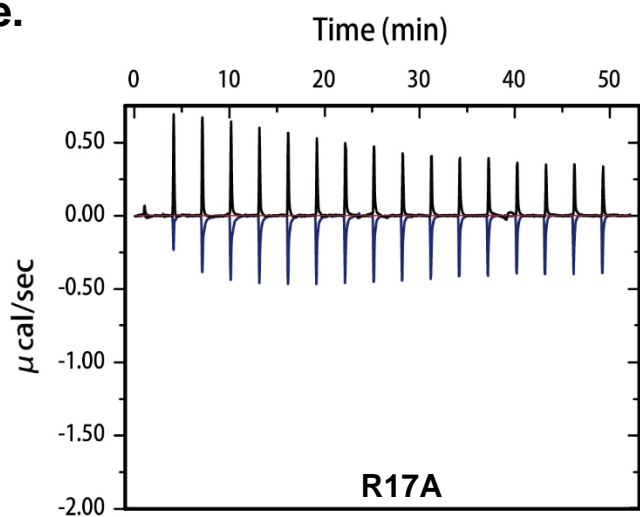
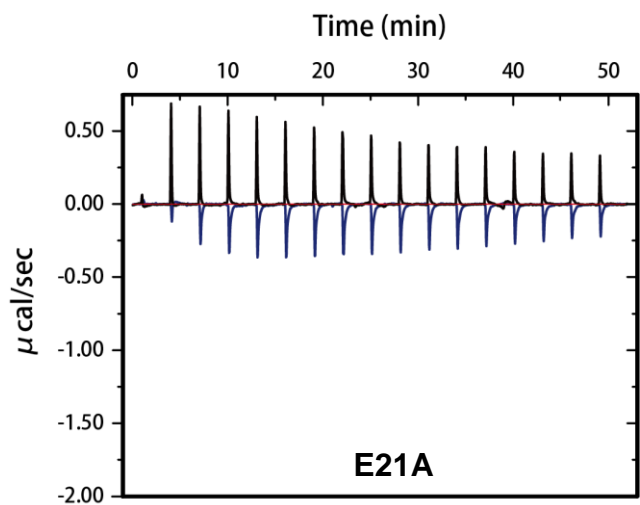
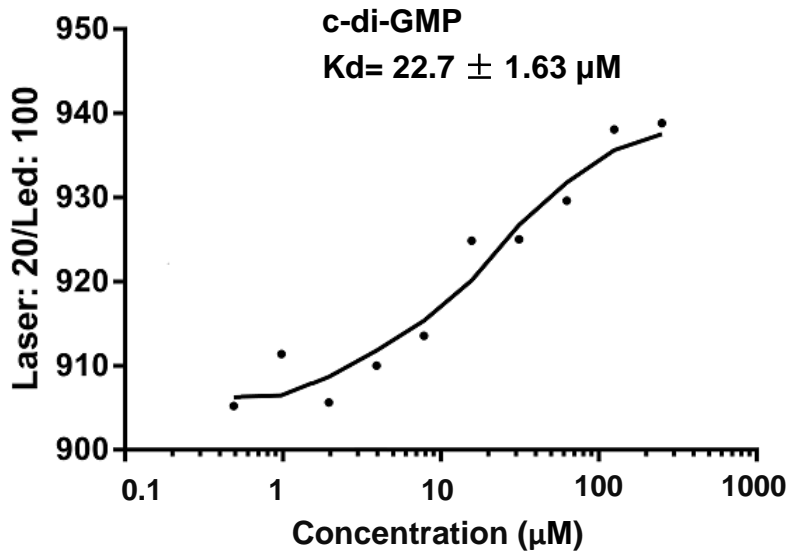
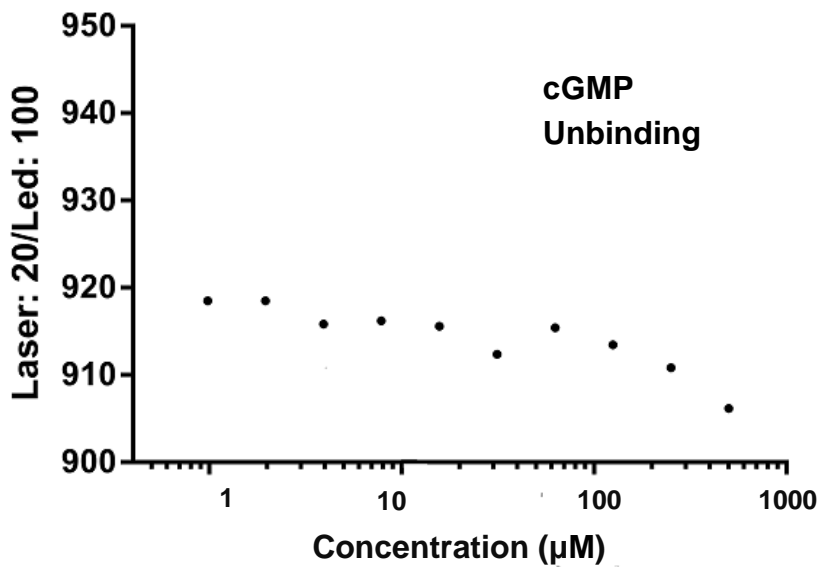


a.**b.****c.****d.****e.****f.**

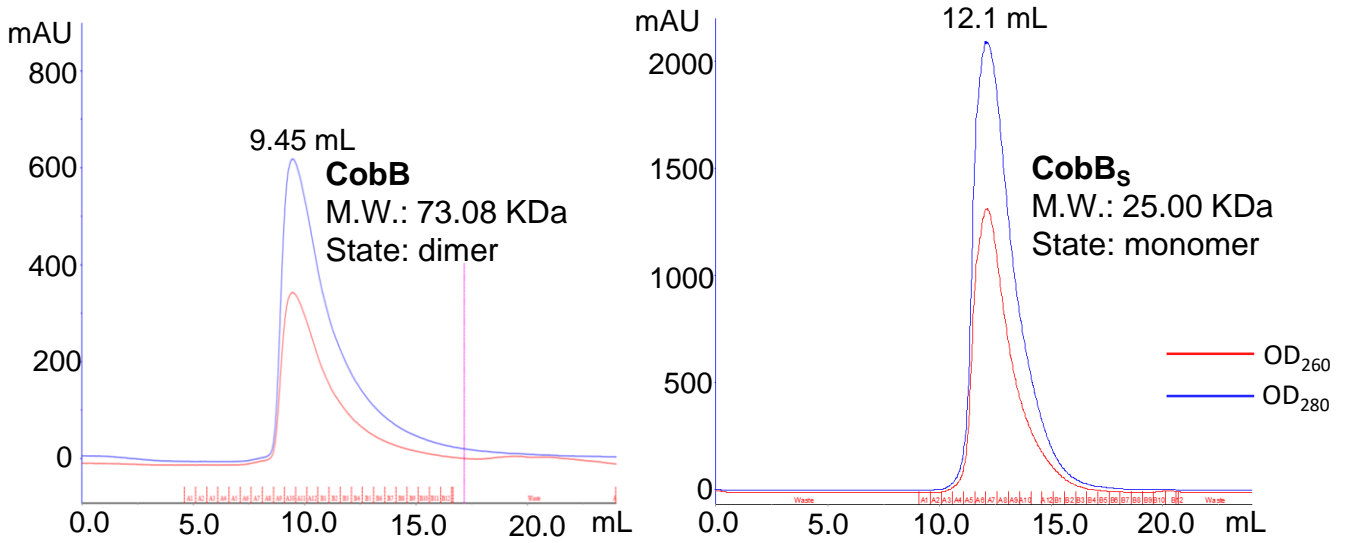
a.



b.

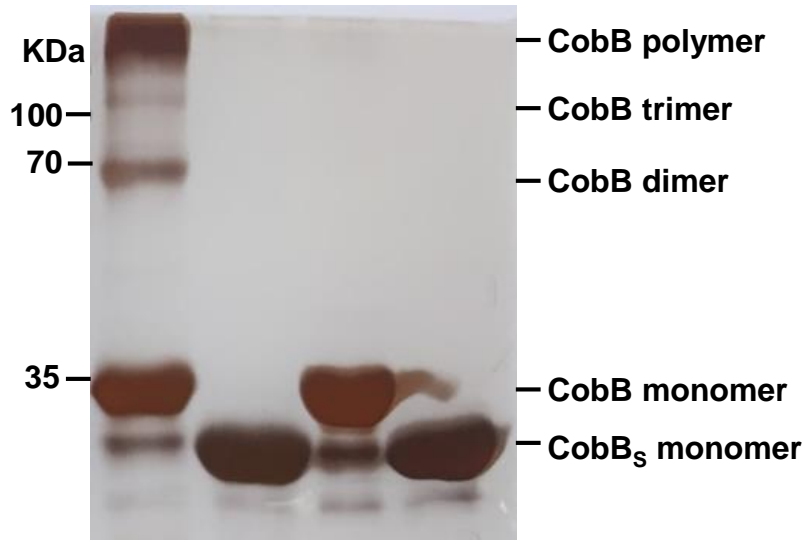


a.



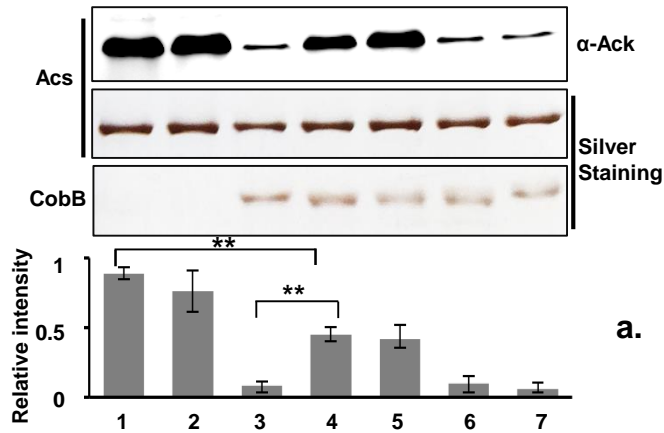
b.

UV cross-linking	+	+	-	-
CobB	+	-	+	-
CobB_S	-	+	-	+

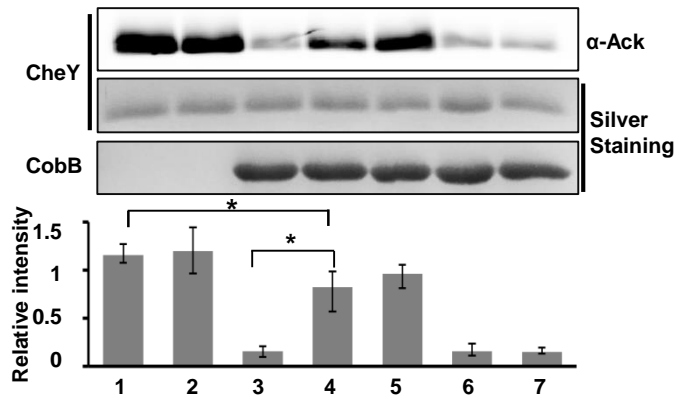


a.

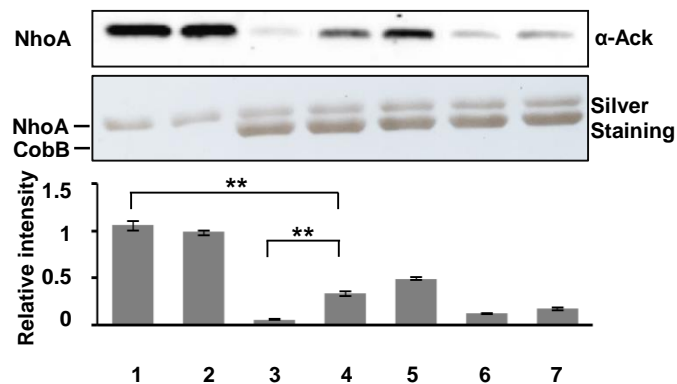
Acs	+	+	+	+	+	+	+
CobB	-	-	+	+	+	+	+
c-di-GMP (μ M)	-	500	-	250	500	-	-
cGMP (μ M)	-	-	-	-	-	500	-
c-di-AMP (μ M)	-	-	-	-	-	-	500

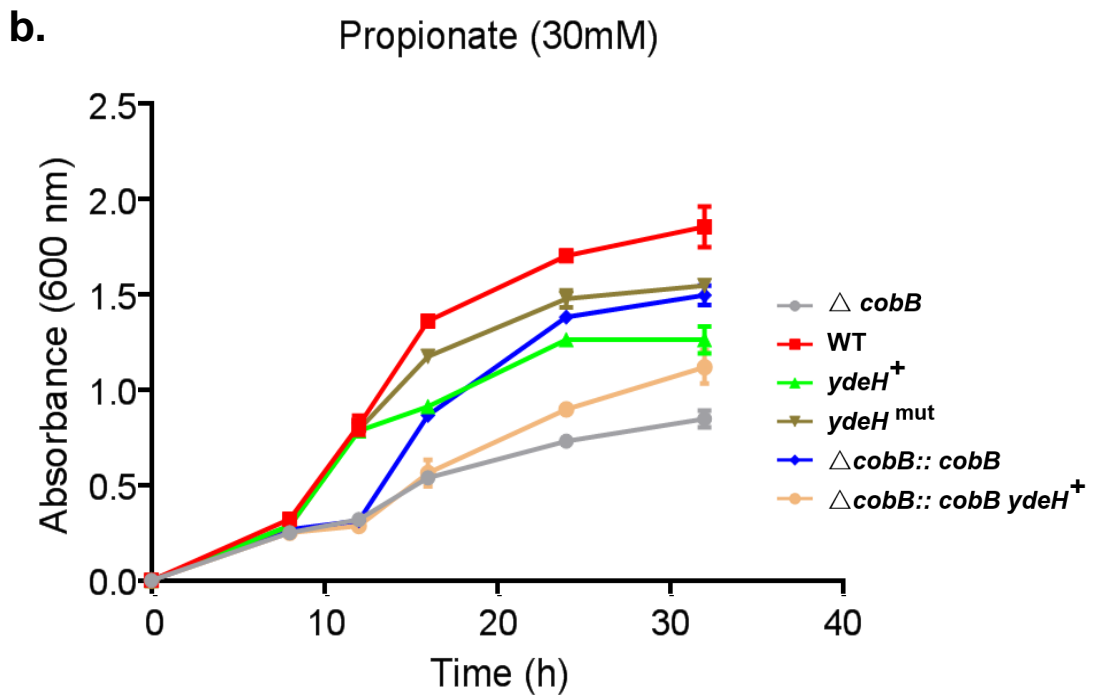
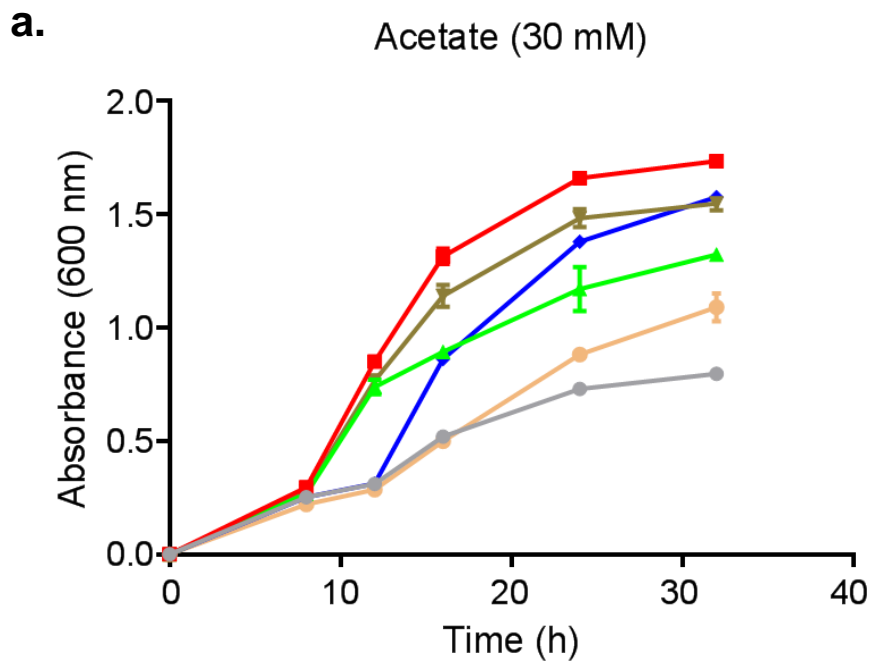
**a.****b.**

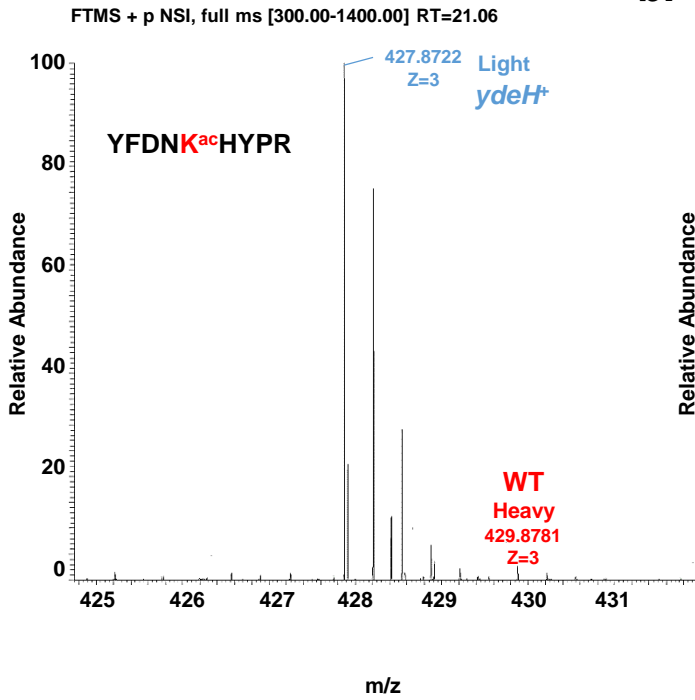
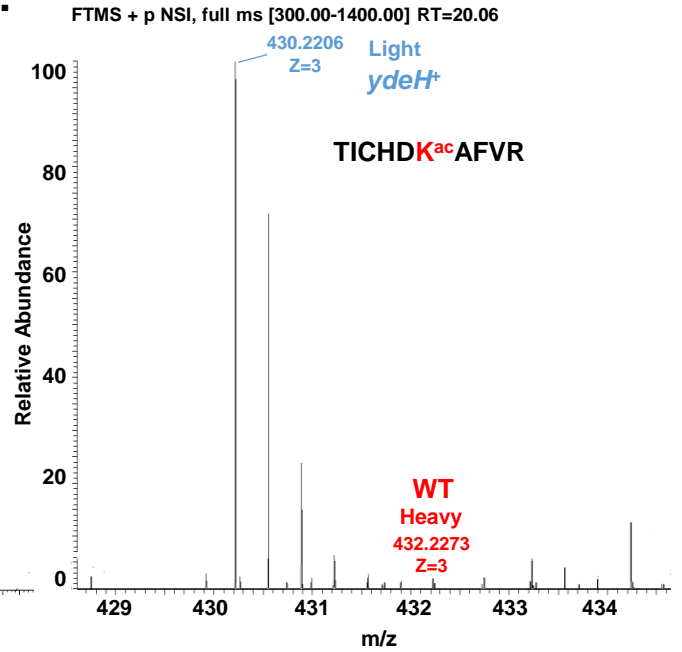
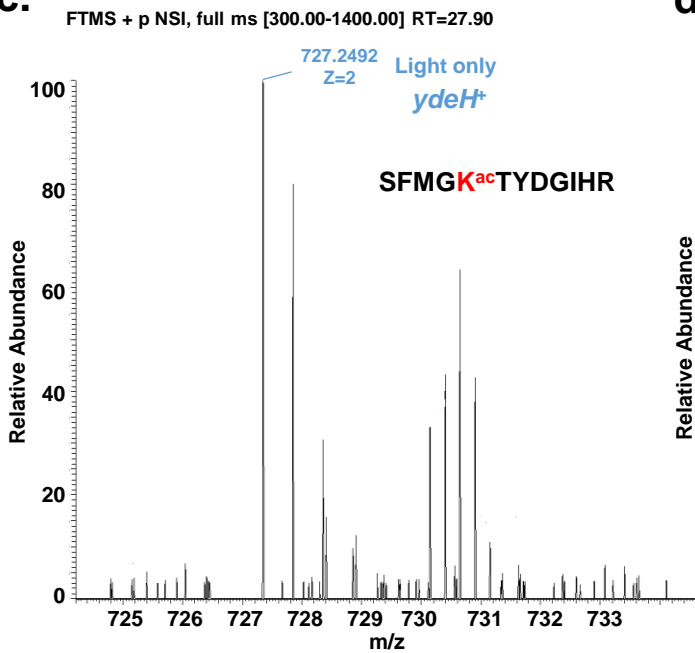
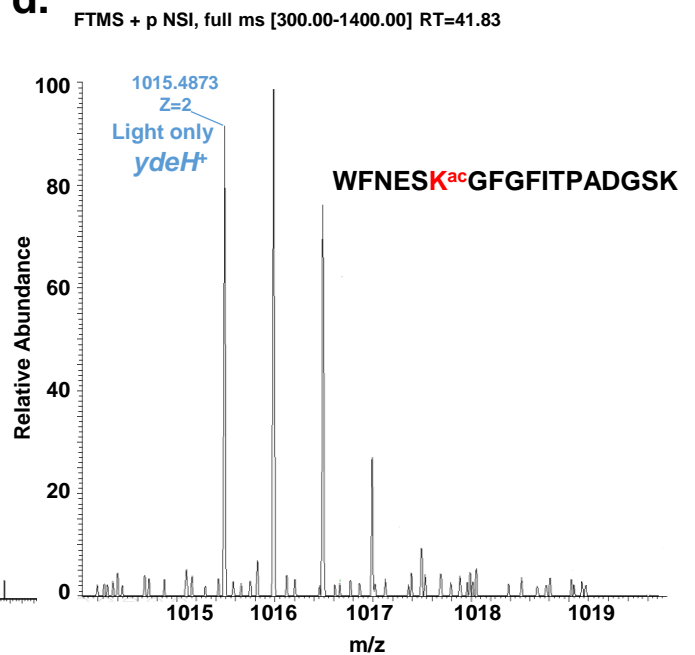
CheY	+	+	+	+	+	+	+
CobB	-	-	+	+	+	+	+
c-di-GMP (μ M)	-	500	-	250	500	-	-
cGMP (μ M)	-	-	-	-	-	500	-
c-di-AMP (μ M)	-	-	-	-	-	-	500

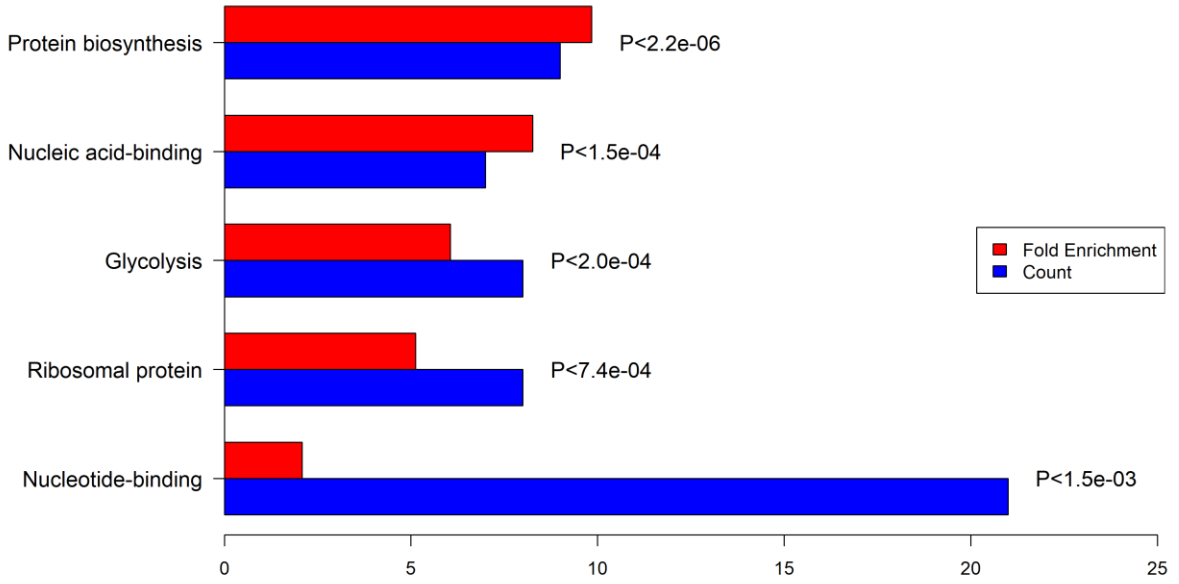
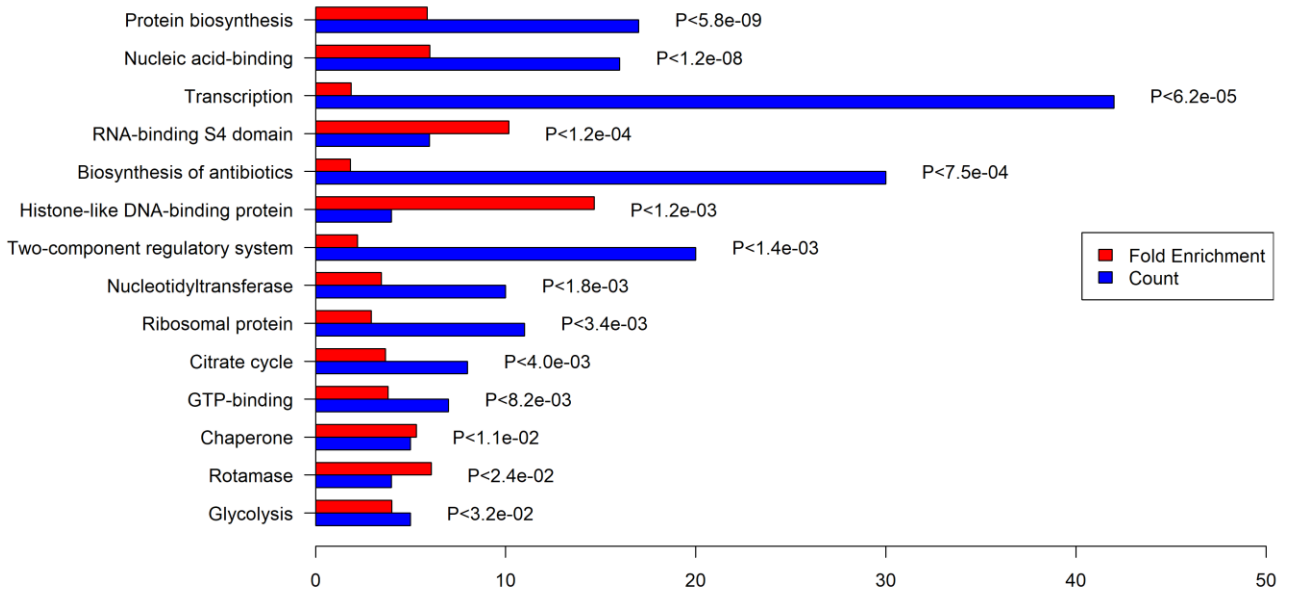
**c.**

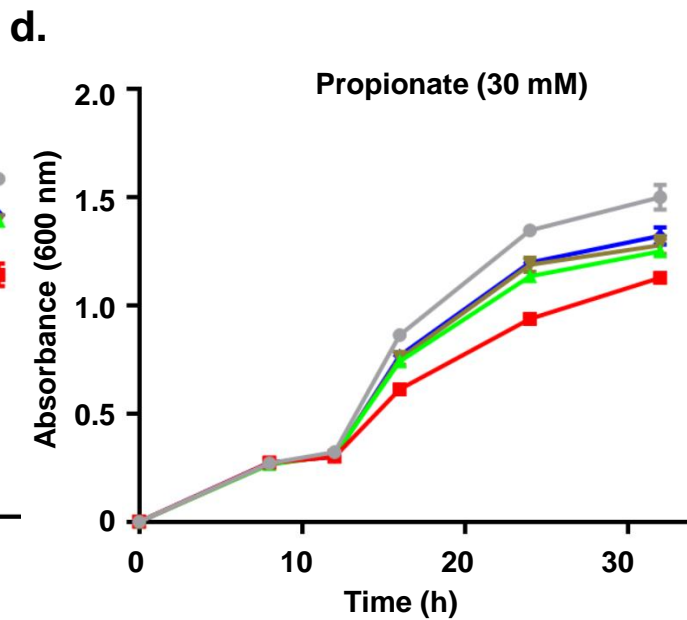
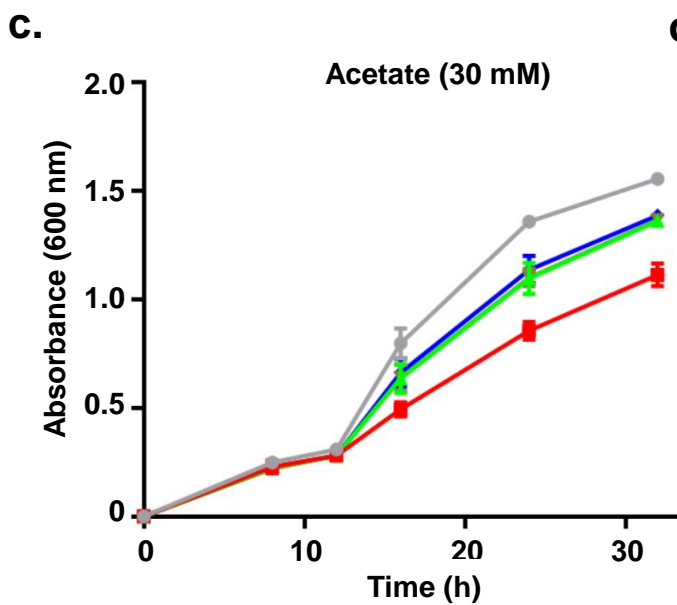
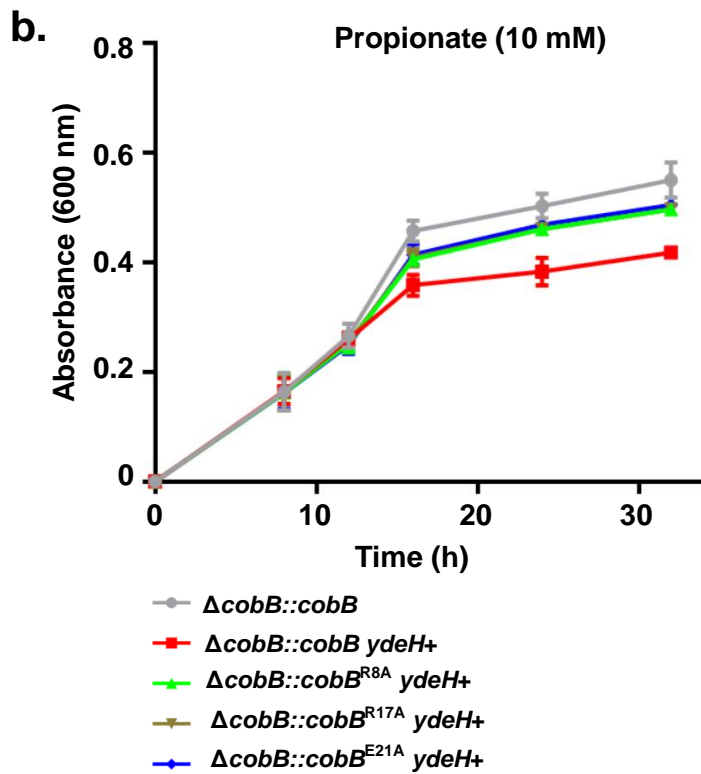
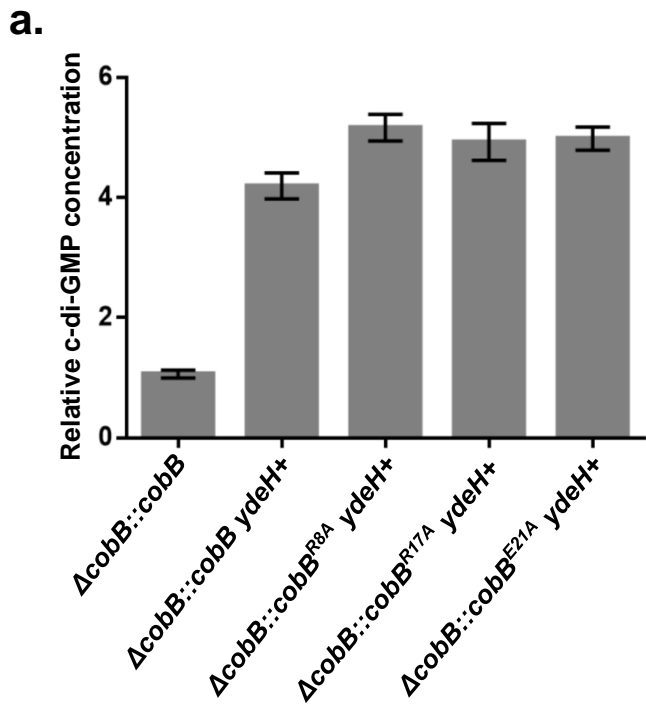
NhoA	+	+	+	+	+	+	+
CobB	-	-	+	+	+	+	+
c-di-GMP (μ M)	-	500	-	250	500	-	-
cGMP (μ M)	-	-	-	-	-	500	-
c-di-AMP (μ M)	-	-	-	-	-	-	500

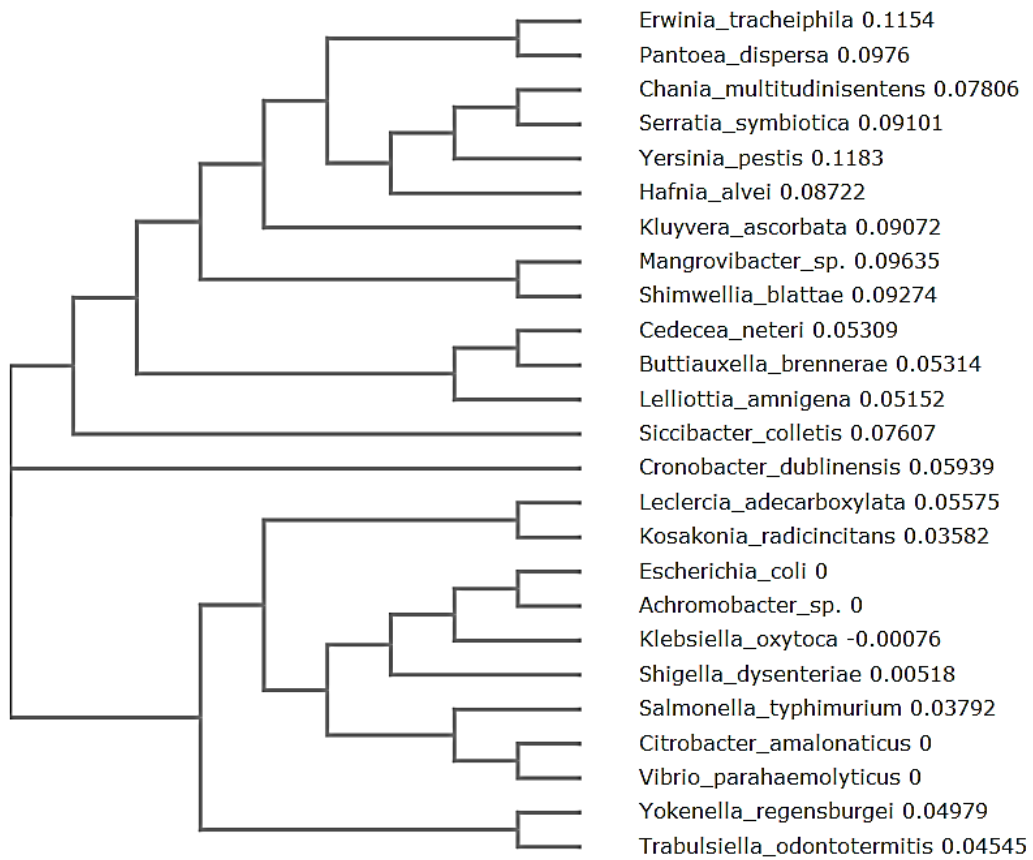




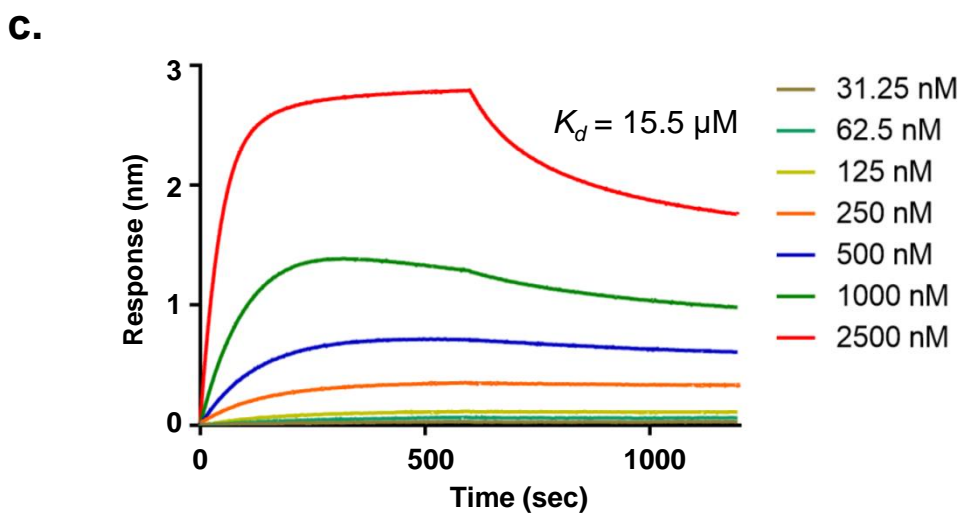
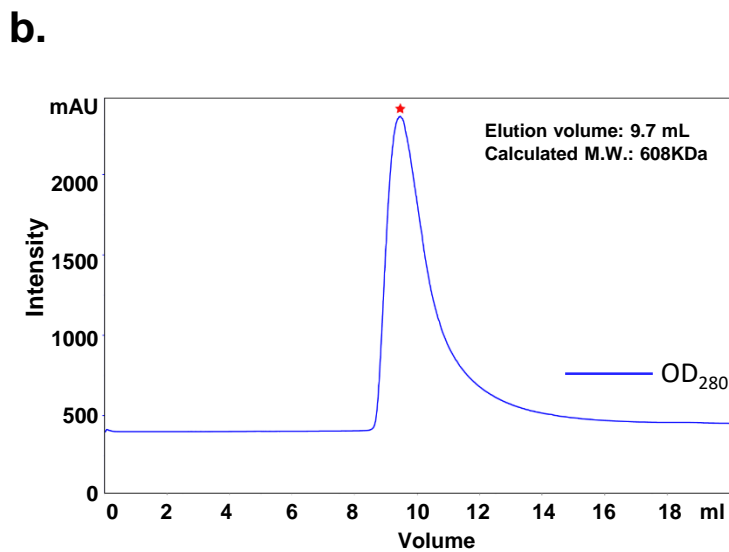
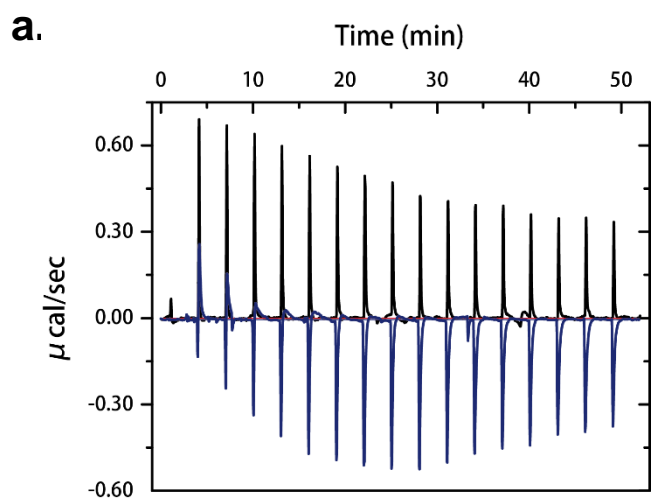
a.**b.****c.****d.**

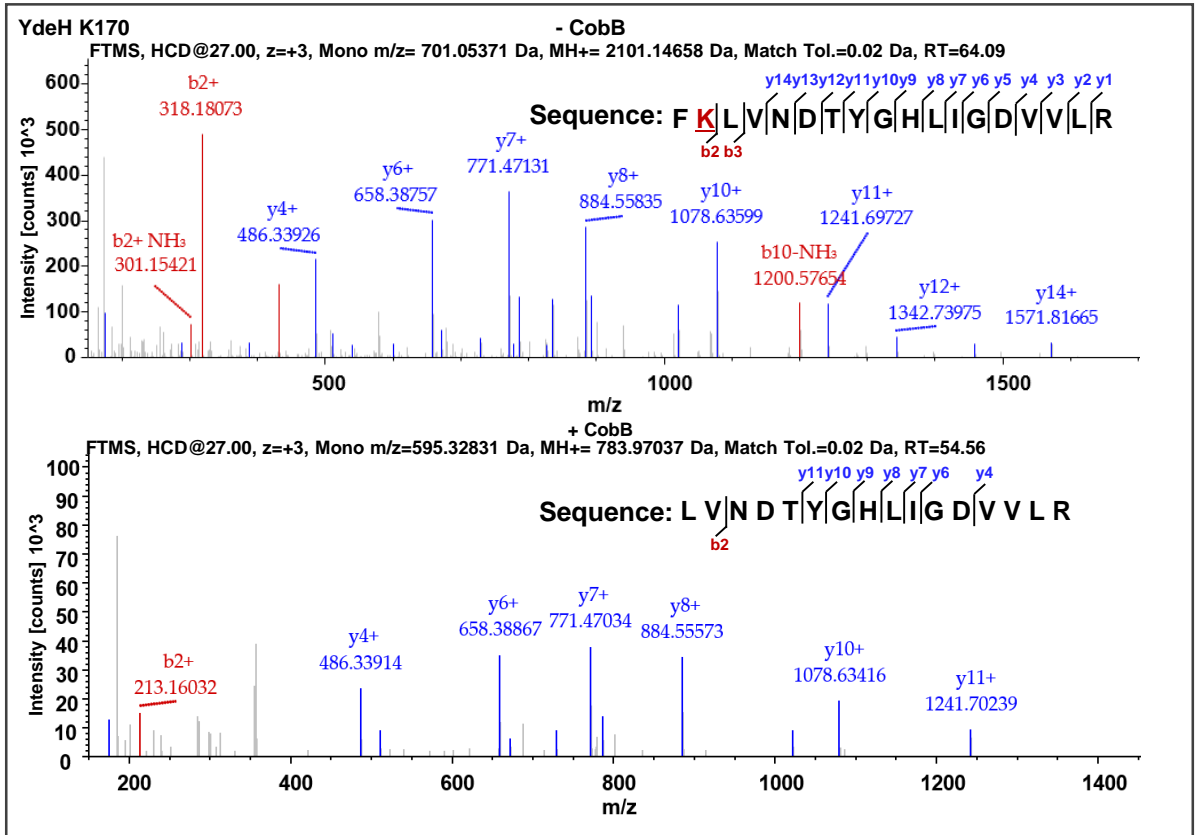
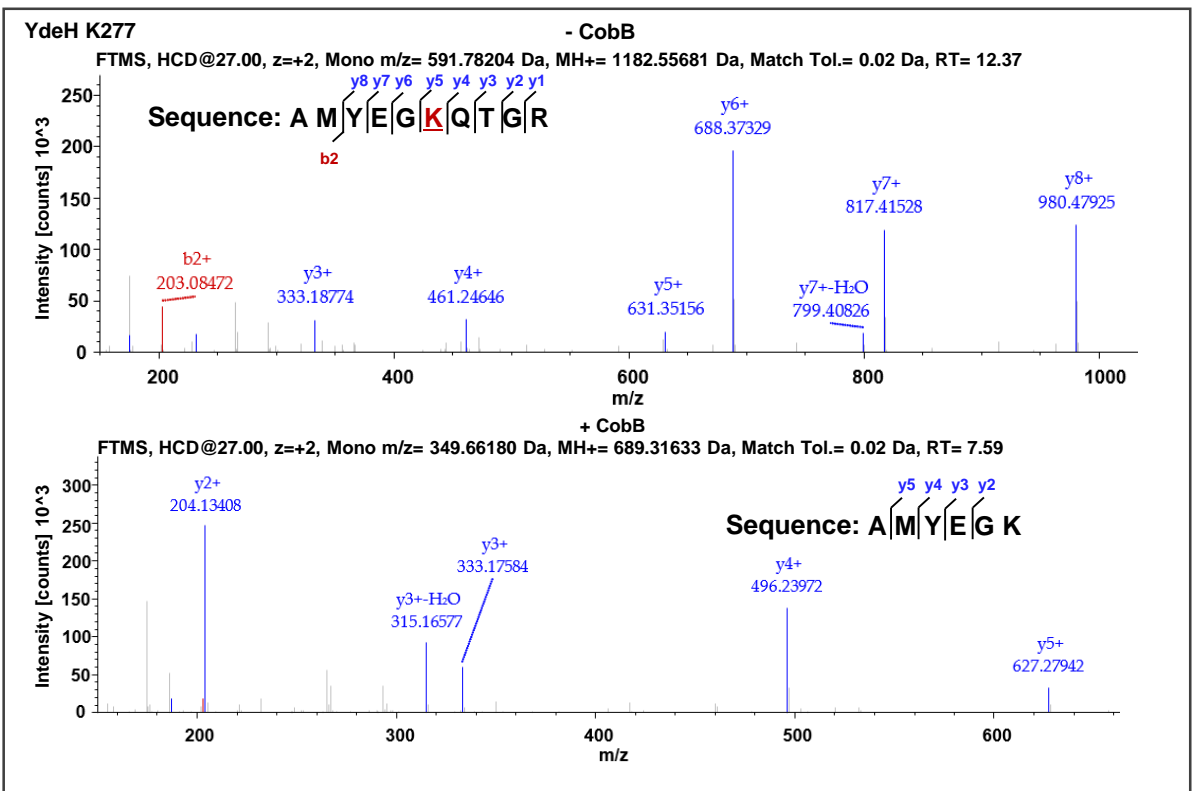
a.**b.**

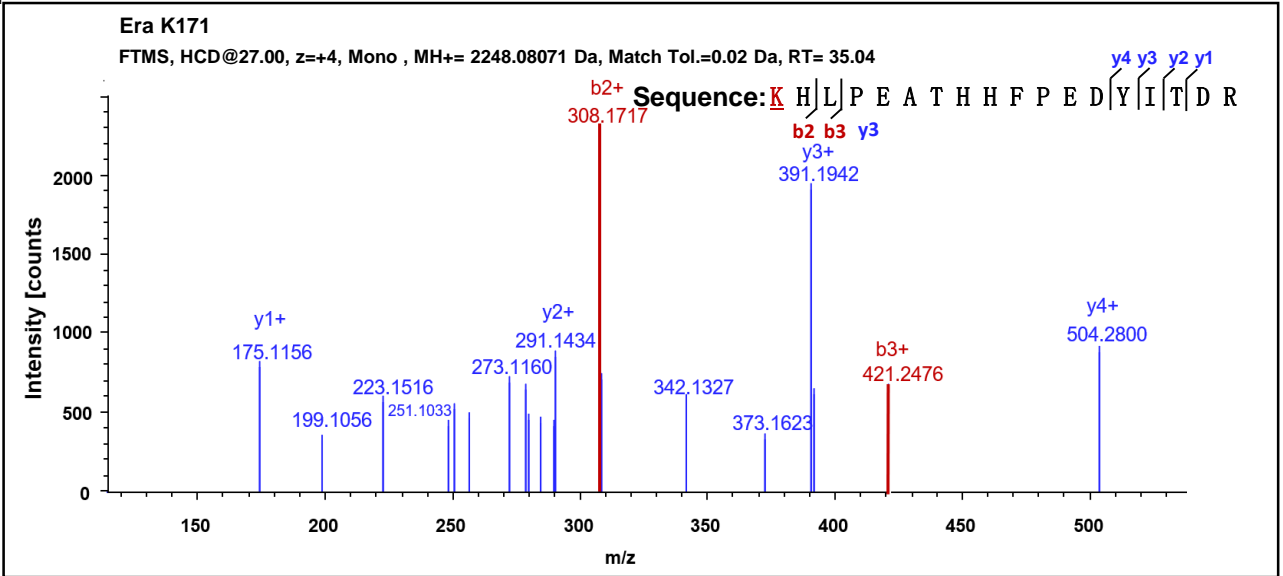
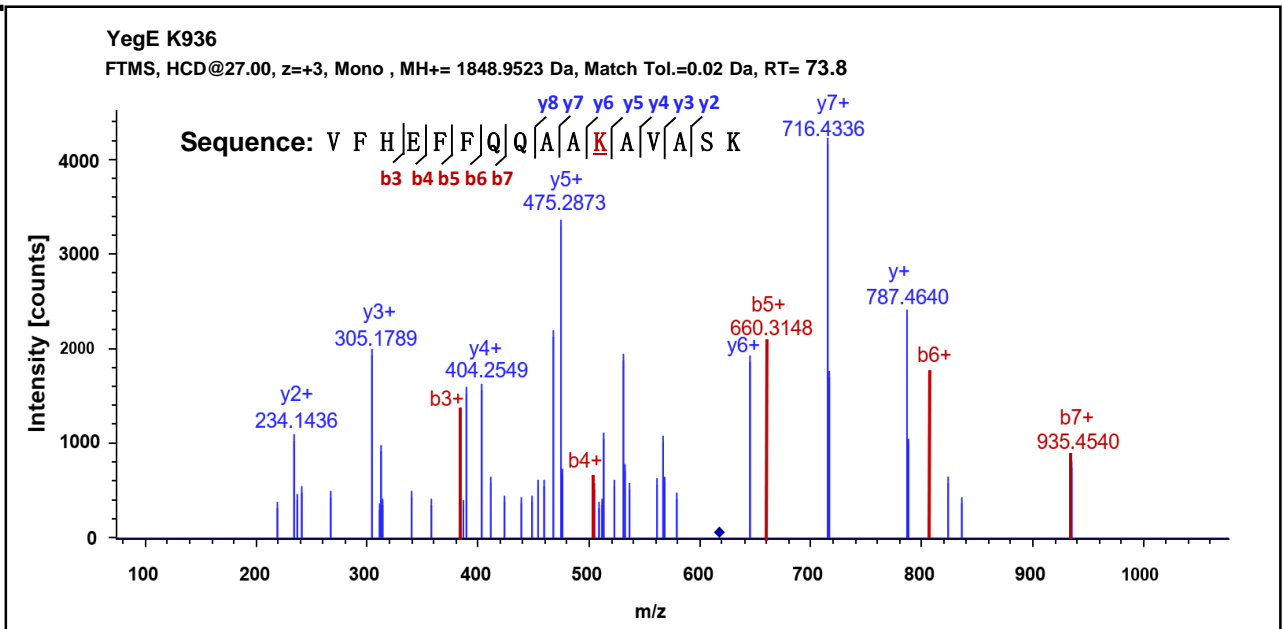


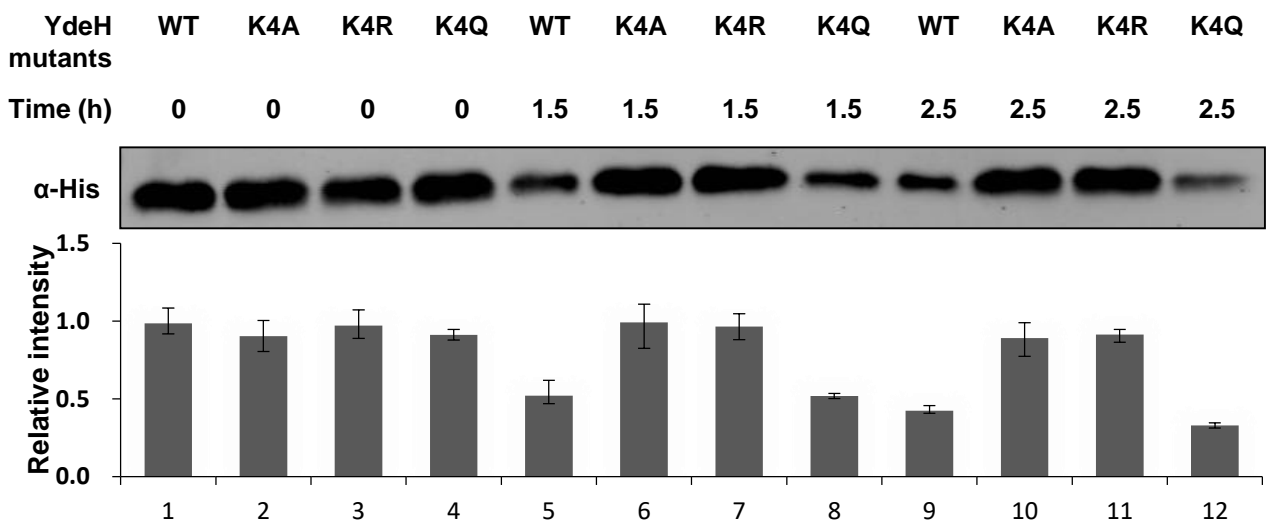


Xu *et al.* Supplementary figure 9.

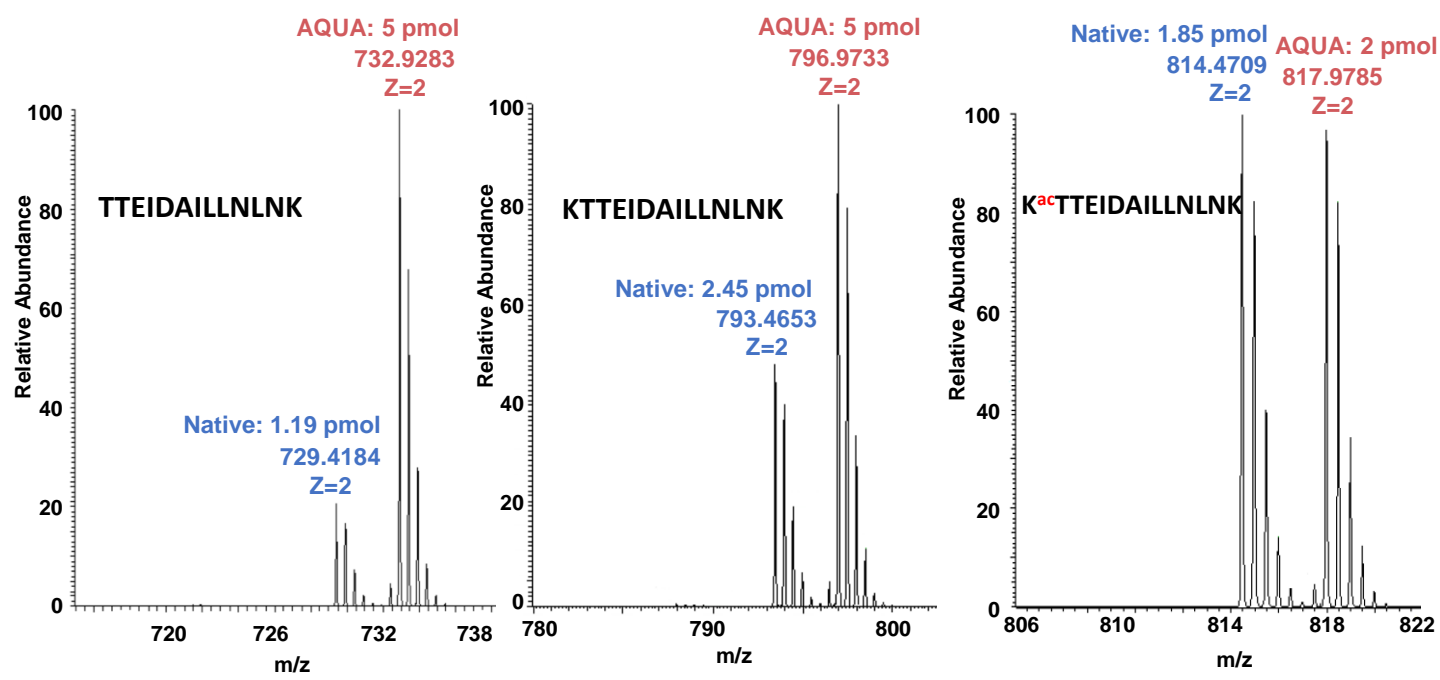


a.**b.**

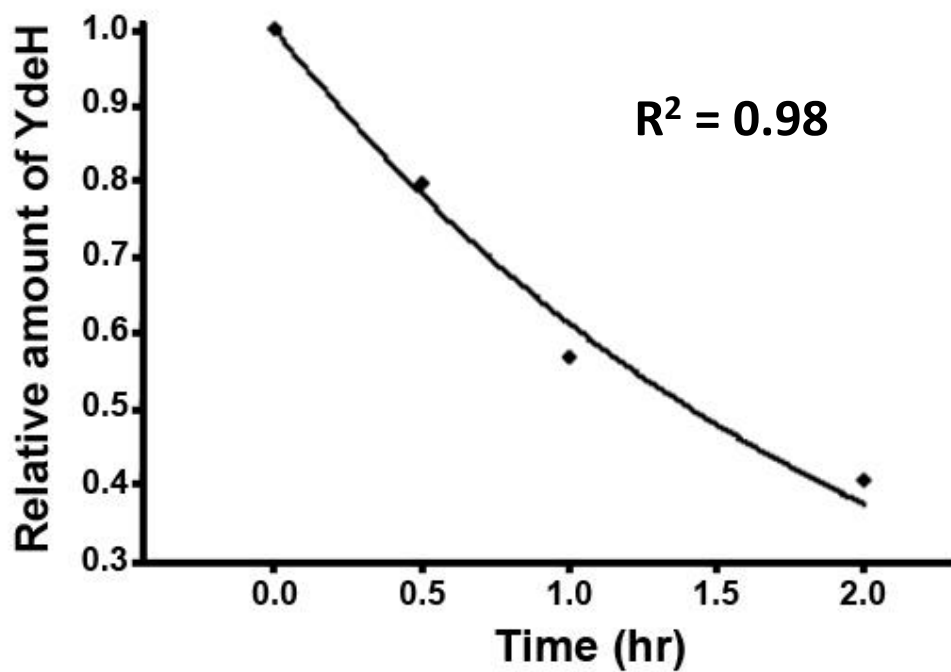
a.**b.**



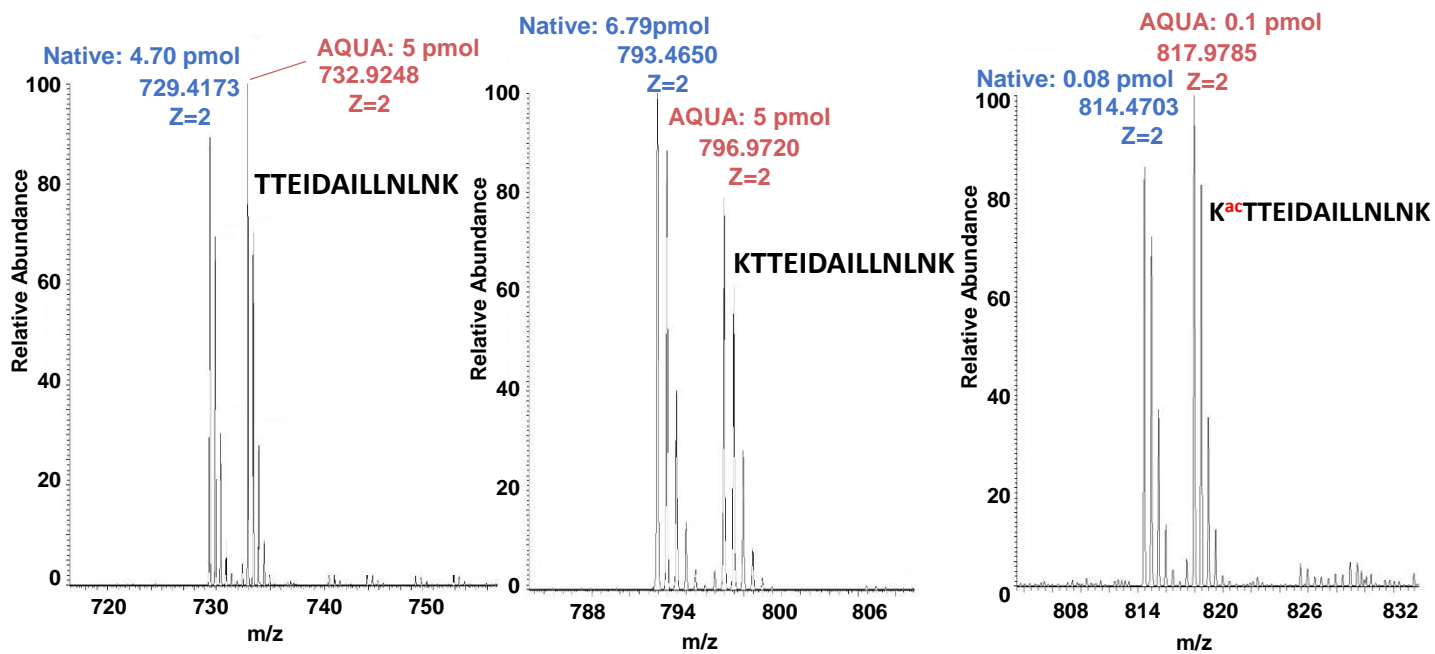
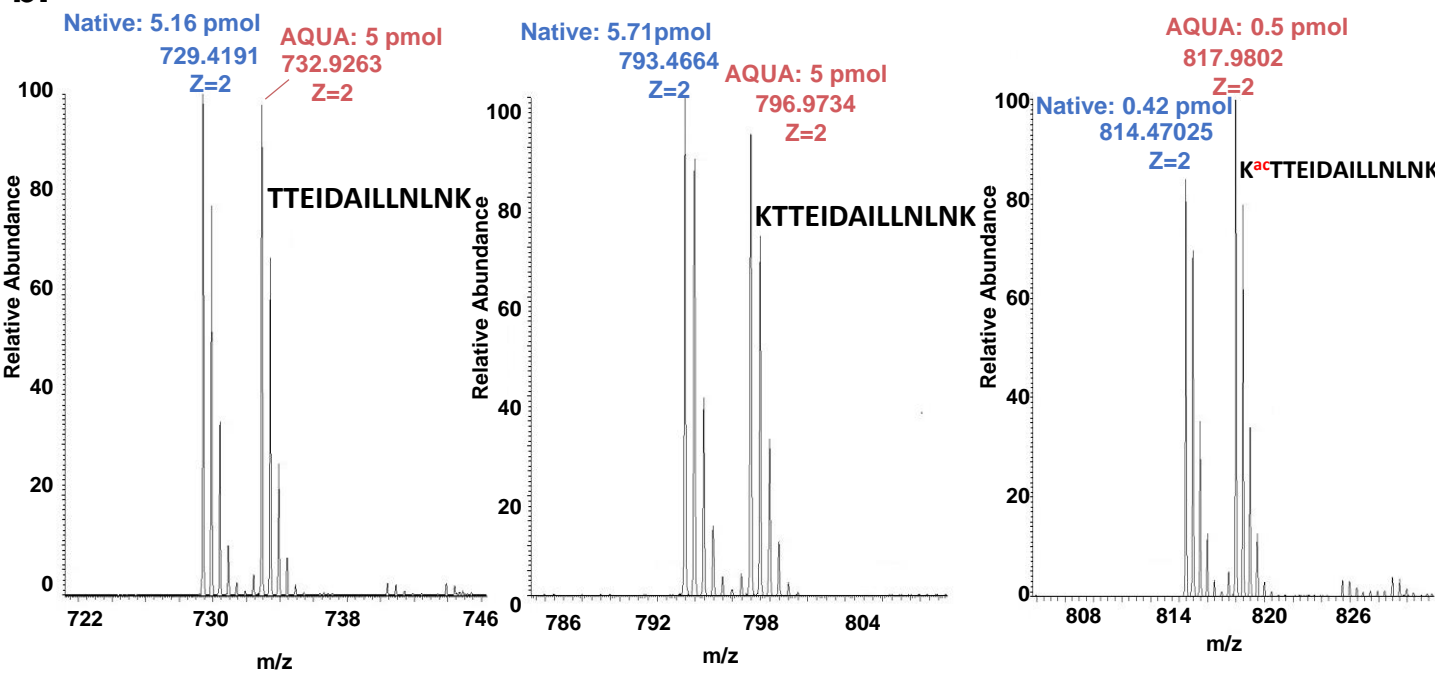
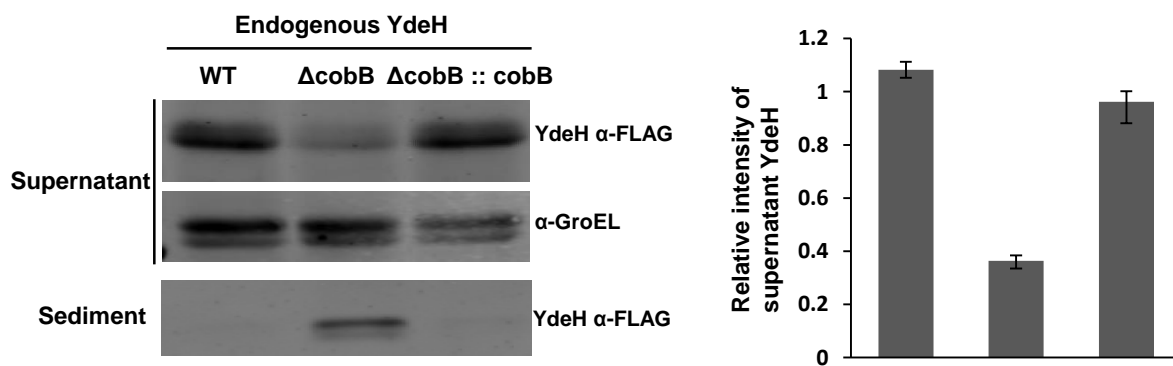
Xu *et al.* Supplementary figure 13.

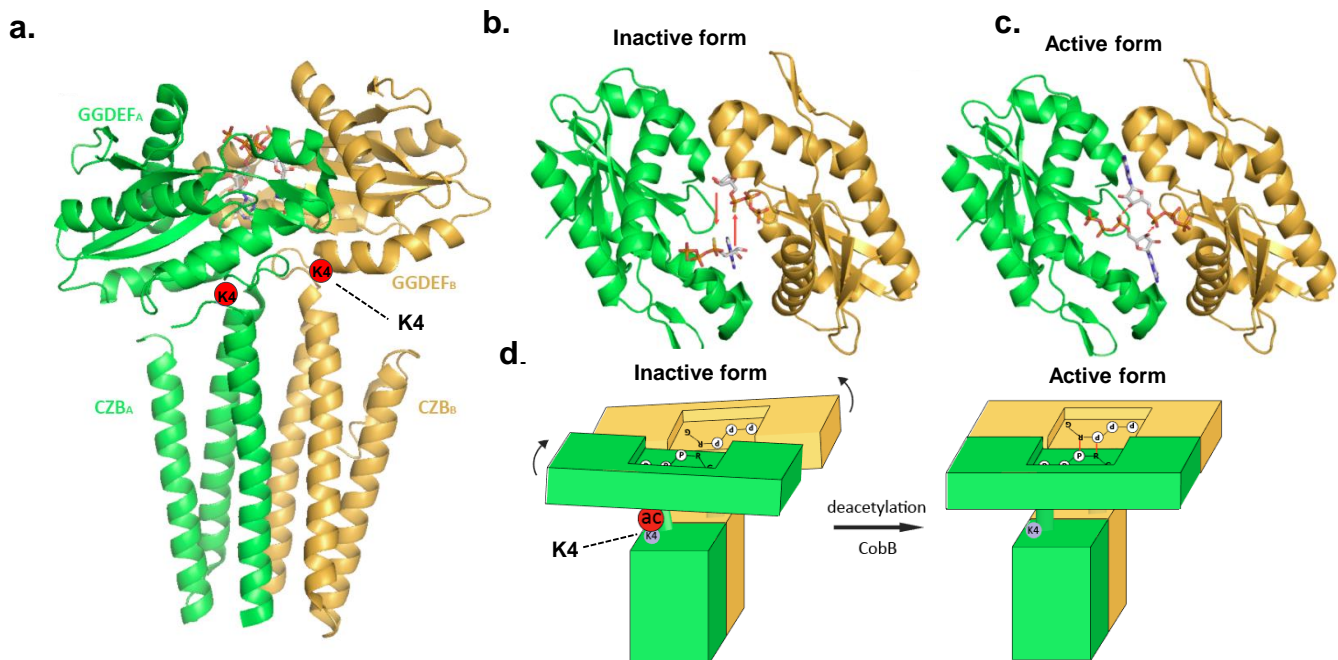


Xu *et al.* Supplementary figure 14.



Xu *et al.* Supplementary figure 15.

a.**b.****c.**



Xu *et al.* Supplementary figure 17.

Time points (h)	8	24		
	WT and $\Delta cobB$	WT and <i>ydeH</i> ⁺	$\Delta cobB:: cobB$ and $\Delta cobB:: cobB ydeH+$	WT and <i>ydeH</i> ^{G206A,G207A}
Acetate	0.009	0.003	0.005	0.758
Propionate	0.0006	0.00002	0.016	0.066