

Supplementary Table 1: Effect of pH changes and different anions on cyanobacterial sAC (CyaC) activity in solution and on CyaC crystals.

Compound added	CyaC activation	Effect on CyaC crystals
Reference (no compound added, pH 7.5)	-	---
Ammonium nitrate (100 mM)	-	no effect
Sodium phosphate (100 mM)	-	no effect
Sodium acetate (100 mM)	-	no effect
bicarbonate (100 mM), pH 7.5	+	crystals dissolve
bicarbonate (50 mM), pH 7.5	+	crystals dissolve
pH 7.5 (100 mM Tris/HCl)	-	no effect
bicarbonate (100 mM), pH 6.5	+	crystals dissolve
pH 6.6 (100 mM Cacodylate)	-	no effect