

**Supplementary Materials: Cloning and characterization of an alkaline alginate lyase with pH-stable and thermo-tolerance property**

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Table S1 Primers used in this study

Primers	sequences
PyAly08-F	5'- GGGAATTC <u>CATATG</u> ATGTTATTGAACAAAATTATT-3'
PyAly08-R	5'- CCG <u>CTCGAG</u> GTAAGAGTAGTTGTCGTGAGT-3'

Table S2 Effects of KCl of Aly08. Notes: Activity without addition of chemicals was defined as

100%. Data are shown as means  $\pm$  SD (n = 3).

Reagent added	Concentration (mM)	Relative activity(%)
None	-	100.00 $\pm$ 0.24
	1	99.67 $\pm$ 0.86
KCl	10	100.32 $\pm$ 1.38
	50	103.35 $\pm$ 0.75
	100	103.54 $\pm$ 0.16
	200	105.87 $\pm$ 0.60

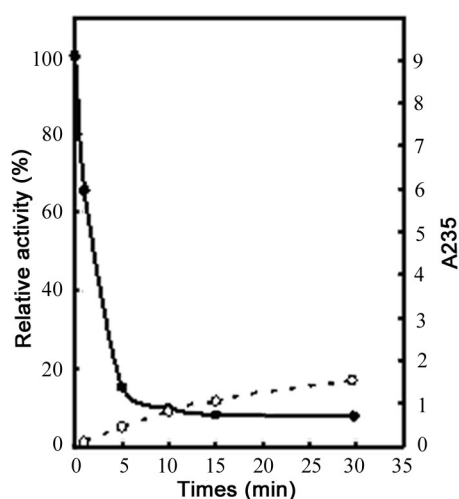


Fig S1 Viscosity measurement of Aly08. The initial viscosity of the reaction mixture without enzyme was taken as 100%. Rate of viscosity reduction is shown as open circles with solid line; the absorbance at 235 nm is shown as filled circles with dotted line