

## Supporting information

# Levansucrase from *Bacillus amyloliquefaciens* KK9 and its Y237S variant producing the high bioactive levant-type fructooligosaccharides

Pongsakorn Phengnoi <sup>1</sup>, Thanapon Charoenwongpaiboon <sup>2</sup>, Karan Wangpaiboon <sup>3</sup>, Methus Klaewkla <sup>3</sup>, Santhana Nakapong <sup>4</sup>, Wonnop Visessanguan <sup>5</sup>, Kazuo Ito <sup>6</sup>, Rath Pichyangkura <sup>3</sup> and Kamontip Kuttiyawong <sup>1,\*</sup>

<sup>1</sup> Department of Chemistry, Faculty of Liberal Arts and Science, Kasetsart University, Kamphaeng Saen Campus, Nakhon Pathom, 73140, Thailand; pkphe@hotmail.com

<sup>2</sup> Department of Chemistry, Faculty of Science, Silpakorn University, Nakhon Pathom, 73000, Thailand; thanapon.charoenwongpaiboon@gmail.com

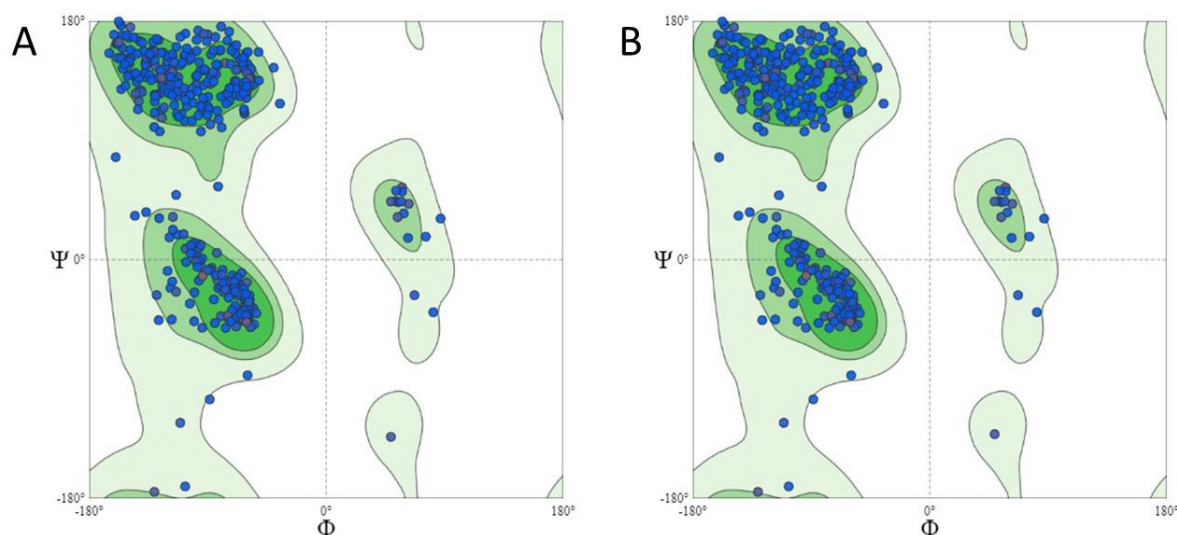
<sup>3</sup> Department of Biochemistry, Faculty of Science, Chulalongkorn University, Bangkok, 10330, Thailand; wangpaiboon9@gmail.com (K.W.); methus.kanon@gmail.com (M.K.); prath@chula.ac.th (R.P.)

<sup>4</sup> Department of Chemistry, Faculty of Science, Ramkhamhaeng University, Bangkok, 10240, Thailand; santhana@ru.ac.th

<sup>5</sup> National Center for Genetic Engineering and Biotechnology, National Science and Technology Development Agency, Pathumthani, 12120, Thailand; wonnop@biotec.or.th

<sup>6</sup> Graduate School of Science, Osaka City University, Osaka, 558-8585, Japan; ito@sci.osaka-cu.ac.jp

\* Correspondence: kamontip.k@ku.ac.th.



**Figure S1.** Ramachandran Plot for homology modeling of (A) wild-type and (B) Y237S mutant LsKK9.

Table S1. LsKK9 purification data.

Step	Total activity (U)	Total protein (mg)	Specific activity (U/mg)	Fold	Recovery (%)
Wild type					
Crude	1850	22.6	81.9	-	100
CM toyopearl	1021	6.7	152.4	1.9	55
Y237S					
Crude	2368	25.9	91.4	-	100
CM toyopearl	969	9.4	103.5	1.1	41

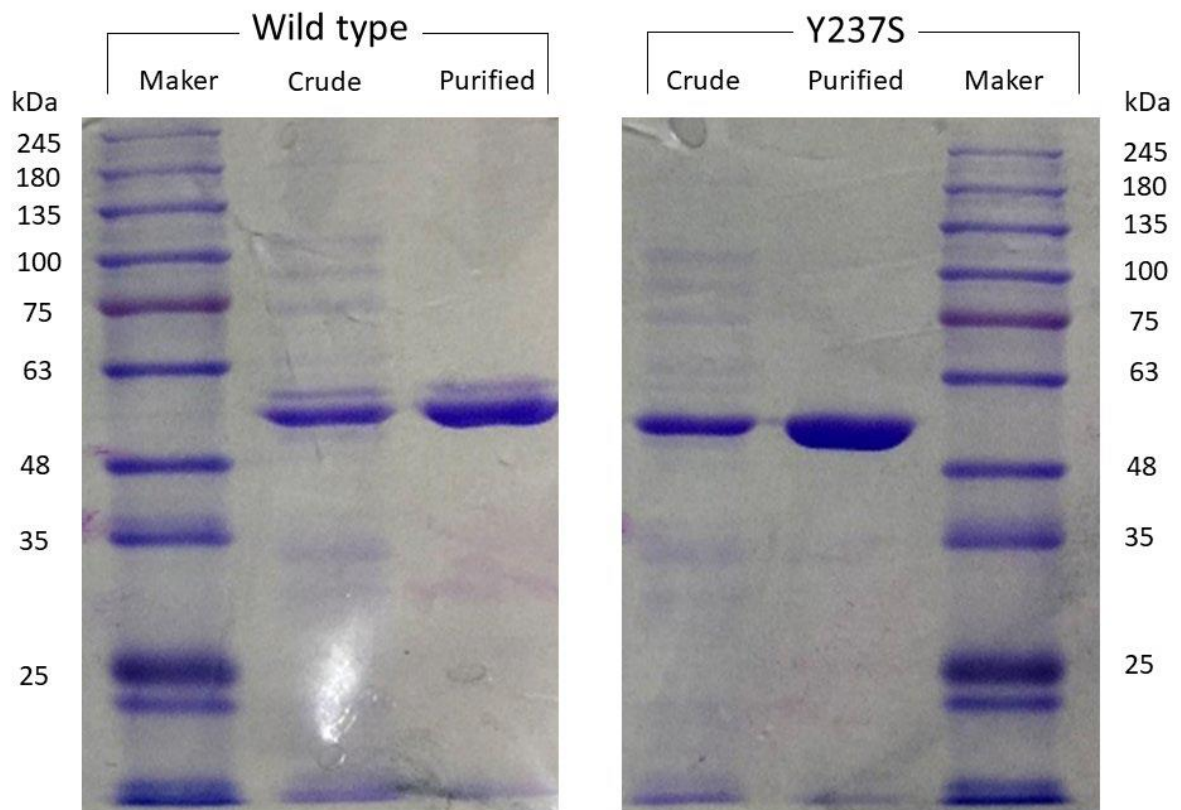


Figure S2. SDS-PAGE of purified wild-type and Y237S mutant LsKK9.