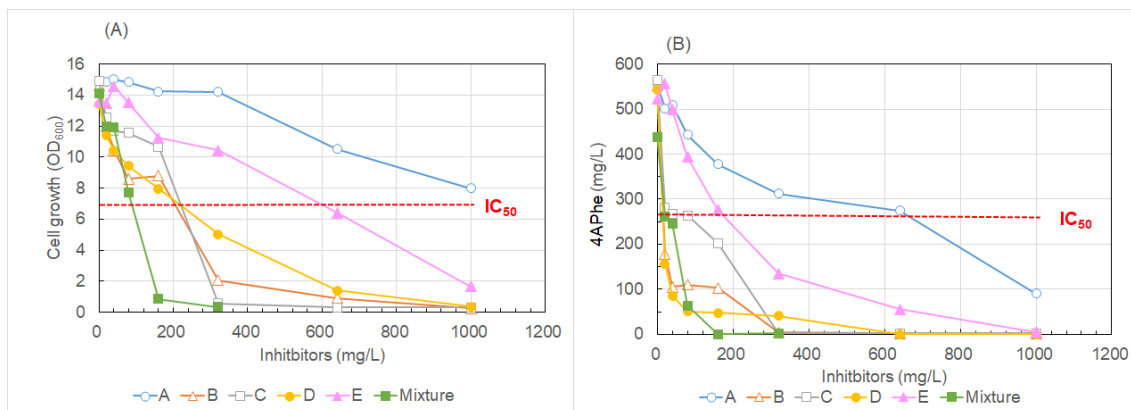


1 **Electronic supplementary information (ESI)**

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5 **Fig. S1** Effects of potential inhibitors present in the enzymatic hydrolysate of sorghum

6 bagasse on the cell growth of (A) and 4-aminophenylalanine (4APhe) production by (B)

7 recombinant *Escherichia coli*. Potential inhibitors were divided into different groups:

8 group A, furan aldehydes (furfural, 5HMF, and 5-methyl-2-furaldehyde; open circles);

9 group B, benzaldehydes (4-hydroxybenzaldehyde, vanillin, and syringaldehyde; open

10 triangles); group C, benzoic acids (benzoic acid, syringic acid, and *p*-hydroxybenzoic

11 acid; open squares); group D, cinnamic acid derivatives (*trans*-ferulic acid and *p*-

12 coumaric acid; closed circles); group E, aliphatic acid (levulinic acid; closed triangles);

13 and a mixture of all of these (closed squares) were added to modified M9 medium in a

14 deep-well fermentation experiment using the recombinant *E. coli* strain HKE6027. IC₅₀

15 indicates the cell growth of and 4APhe production by *E. coli* (dashed line) at half the

16 maximum concentration of inhibitors. These values were determined from the results of
17 dose-response curves of cell density and 4APhe concentration after 50 h of cultivation.
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