

Review of: "A glycosylphosphatidylinositol-anchored α -amylase encoded by amyD contributes to a decrease in the molecular mass of cell wall α -1,3-glucan in *Aspergillus nidulans*"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

Comment

Miyazawa et al., constructed strains with disrupted *amyD* or overexpressed *amyD* in the genetic background of the wild-type, *agsA*^{OE}, or *agsB*^{OE} to understand the function of *amyD* in alpha-1,3-glucan biosynthesis in *Aspergillus nidulans*. Chemical analyses of alpha-1,3-glucan derived from these strains suggested that AmyD played a role in decreasing the molecular mass (MM) of alpha-1,3-glucan. In addition, authors found that the C-terminal GPI-anchoring region is important for these functions. This study explaining the synthesis of alpha-1,3-glucan in the cell wall of *Aspergilli* is important. Thus, I would recommend the manuscript for acceptance after revises for some points as below.

Major point

1. Although the authors discuss that expression of AmyD with a GPI anchor is important for reaching the substrate, alpha-1,3-glucan, in the space of the cell wall, it is necessary to show whether AmyD(Δ GPI) possesses the activity and where it is secreted in Δ *amyD*-*amyD*^{OE}(Δ GPI) strain.

Minor points

1. I could not find Lane A2 in Fig. S1B, although the lane A2 is described in the legend.
2. Please, add "Genome of ABPU1 strain" in Fig. S1C.
3. Please, add the size of molecular weight markers in Fig. S1B and D and the length of PCR products in Fig. S1A, C, and E.
4. P. 5, line 144 – 146, line 146 – 147, line 153 – 155, line 157 – 159, P. 6, line 177 – 179, line 179 – 180, line 181 – 183

Authors should describe the name of primers used for amplification of each amplicon in the text.

5. P. 5, line 148

Clontech to “TaKaRa”?

6. P. 6, line 168 – 170

How about “To construct pAHT-amyD, primers IF-Ptef1-hph-Fw and IF-amyD-up-hph-Rv were used to amplify amplicon 1 by PCR using pAPT-amyD as a template”? If it is correct, show the amplicon1 in Fig. 3A.

7. P. 6, line 179

A. oryzae to “*A. nidulans*”

8. Figure 3 legend’s title

Please add “from the series of (A) wild type, (B) $agsA^{OE}$ strains, and (C) $agsB^{OE}$ strains”

9. P. 10, line 309

“glucan in A4, which” to “glucan in A4 strain, which”