

Mammals possess a unique signaling system based on the proteolytic mechanism of a disintegrin and metalloproteinases (ADAMs) on the cell surface. We found two genes encoding ADAMs in *Aspergillus oryzae* and named them *admA* and *admB*. We produced *admA* and *admB* deletion strains to elucidate their biological function and clarify whether fungal ADAMs play a similar role as in mammals. The $\Delta admA\Delta admB$ and $\Delta admB$ strains were sensitive to cell wall-perturbing agents, congo red, and calcofluor white. Moreover, the two strains showed significantly increased weights of total alkali-soluble fractions from the mycelial cell wall compared to the control strain. Furthermore, $\Delta admB$ showed MpkA phosphorylation at lower concentration of congo red stimulation than the control strain. However, the MpkA phosphorylation level was not different between $\Delta admB$ and the control strain without the stimulation. The results indicated that *A. oryzae* AdmB involved in the cell wall integrity without going through the MpkA pathway.

AdmB, *Aspergillus oryzae* ADAM, is involved in cell wall construction.

