

Table S1: The score system to determine the protein localization.

Condition	Point
ID(CW) ^a or $\Psi(\text{NSAF}_{\text{insol}} \text{NSAF}_{\text{sol}})^{\text{b}} \geq +3$	+1
ID(WCL) ^a or $\Psi(\text{NSAF}_{\text{insol}} \text{NSAF}_{\text{sol}}) \leq -3$	-1
$+2 < \Psi(\text{NSAF}_{\text{insol}} \text{NSAF}_{\text{sol}}) < +3$	+0.5
$-3 < \Psi(\text{NSAF}_{\text{insol}} \text{NSAF}_{\text{sol}}) < -2$	-0.5
$-2 < \Psi(\text{NSAF}_{\text{insol}} \text{NSAF}_{\text{sol}}) < +2$	0

^aID(CW), ID(WCL): Identified only at cell wall (CW) or whole cell lysate (WCL) fraction, respectively

^bThe NSAF ratio of a protein between CW and WCL fraction. If the NSAF at CW fraction was higher than the WCL fraction, the ratio had a positive value. Conversely, the ratio had a negative value. It can be calculated as follows.

$$\Psi(\text{NSAF}_{\text{insol}}|\text{NSAF}_{\text{sol}}) = \begin{cases} \frac{\text{NSAF}_{\text{insol}}}{\text{NSAF}_{\text{sol}}}, & \text{if } \text{NSAF}_{\text{insol}} \geq \text{NSAF}_{\text{sol}} \\ -\frac{\text{NSAF}_{\text{insol}}}{\text{NSAF}_{\text{sol}}}, & \text{if } \text{NSAF}_{\text{insol}} < \text{NSAF}_{\text{sol}} \end{cases}$$

where $\text{NSAF}_{\text{insol}}$ and NSAF_{sol} were the NSAF values at insoluble and soluble fraction, respectively.