Supplementary Material

S-layer protein of *Lactobacillus helveticus* SBT2171 promotes human β-defensin 2 expression via TLR2–JNK signaling

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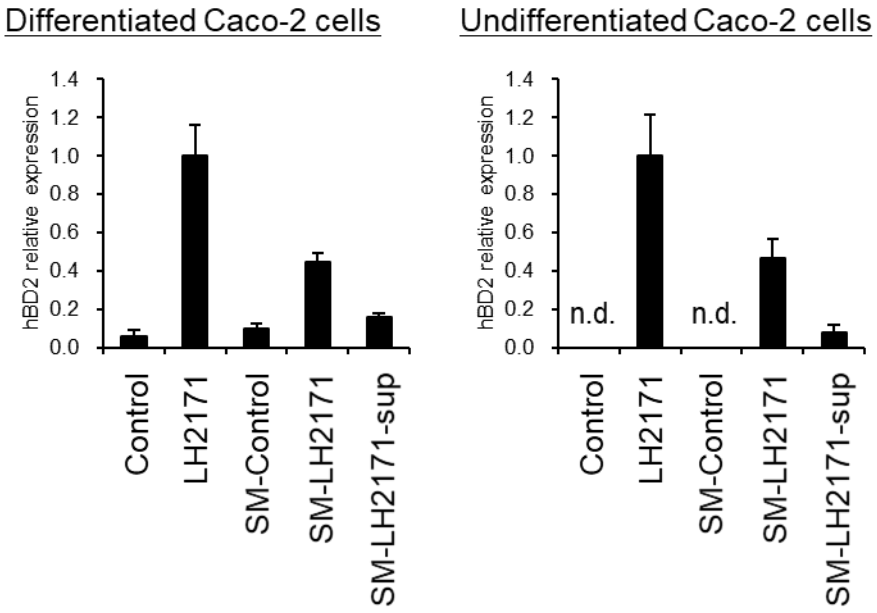
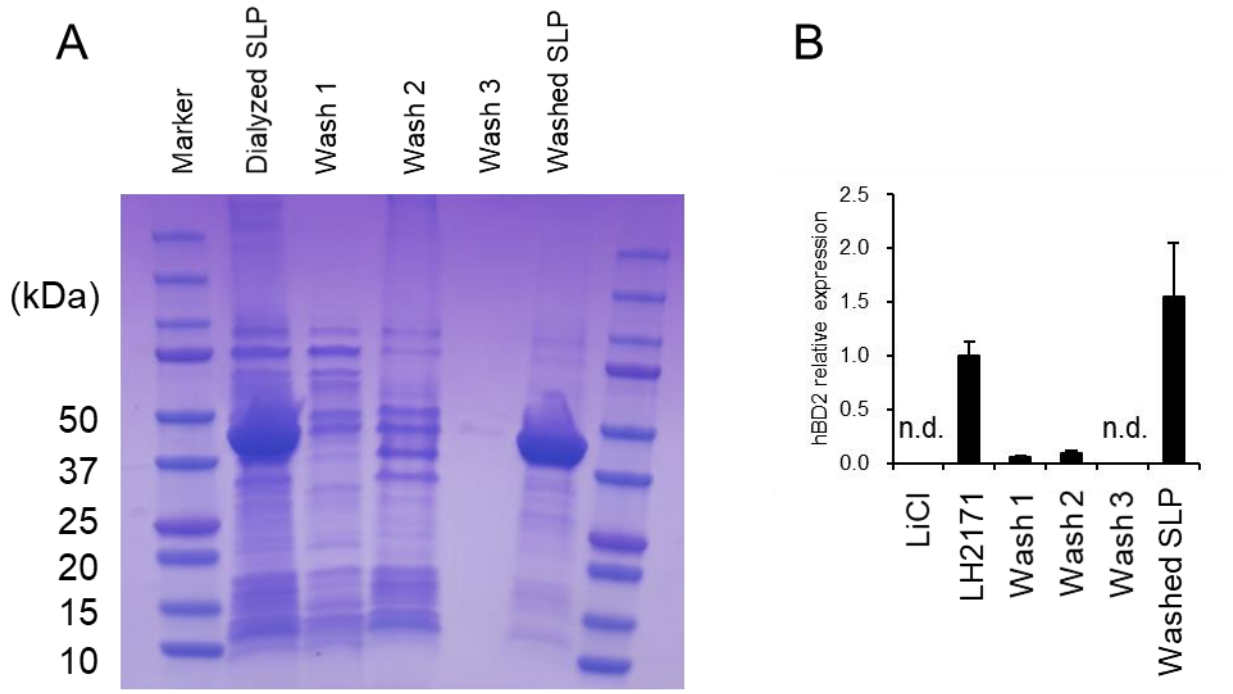
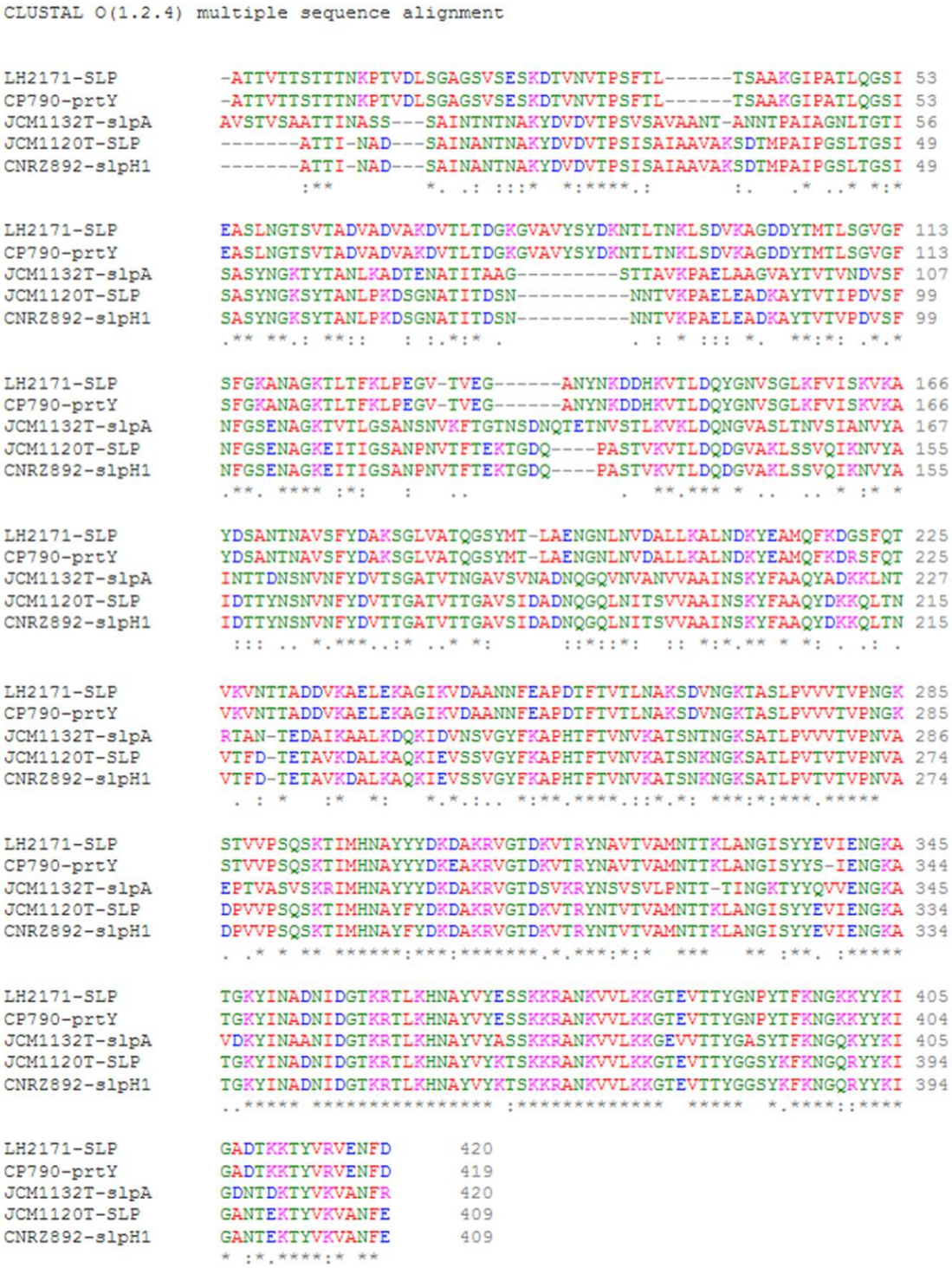
Supplementary Figures



Supplementary Figure 1. The results of hBD2 expression assays in Caco-2 cells do not changed basically depending on the differentiation state. Differentiated or undifferentiated Caco-2 cells were cultured with samples shown in the following. hBD2 mRNA levels were evaluated by quantitative real time-PCR. Each experiment was performed in triplicate; data are shown as mean ± SD. Differentiated Caco-2 cells were prepared by the culturing for 21 days. (Control: medium only, LH2171: LH2171 bacterial body, SM-Control: skim milk, SM-LH2171: skim milk fermented by LH2171, SM-LH2171-sup: supernatant of skim milk fermented by LH2171)



Supplementary Figure 2. Lithium chloride (LiCl) solution does not effect on hBD2 expression. The supernatants in SLP purification step were collected and evaluated in hBD2 expression assay. The dialyzed SLP was washed with distilled water (wash 1), 1M LiCl (wash 2), and distilled water (wash 3). SDS–PAGE profile of collected supernatants and washed SLP **(A)**. Caco-2 cells were cultured with LH2171, collected supernatants, or washed SLP. hBD2 mRNA levels were evaluated by quantitative real time-PCR. Each experiment was performed in triplicate; data are shown as mean ± SD. LiCl solution was used as Control **(B)**.



Supplementary Figure 3. Multiple alignment of deduced amino acid sequences. Amino acid sequences of the predicted mature forms of LH2171 SLP, *L. helveticus* CP790 prtY (accession no. BAA86287.1), *L. acidophilus* JCM1132^{T} slpA (accession no. CAA50535.1), *L. helveticus* JCM1120^{T} SLP (accession no. CAB46985.1), and *L. helveticus* CNRZ892 slpH1 (accession no. CAA62606.1) were analyzed with Clustal Omega.