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Title: Characterization of β -glucan formation by *Lactobacillus brevis* TMW 1.2112 isolated from slimy spoiled beer

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Characterization of β -glucan formation by *Lactobacillus brevis* TMW 1.2112 isolated from slimy spoiled beer

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Highlights:

- The beer spoiler *L. brevis* TMW 1.2112 produces capsular polysaccharides (CPS)
- The CPS are composed of β -(1,3-1,2)-linked glucose moieties (β -glucan)
- (Putative) glucan-degrading genes suggest CPS as carbon source during starvation
- *Gtf-2* is an essential enzyme for β -glucan synthesis in *L. brevis* TMW 1.2112
- The *gtf-2* gene is located on a plasmid in *L. brevis* TMW 1.2112
- *Gtf-2* was proven as suited marker gene for detection of slime-forming beer spoilers

Abstract

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