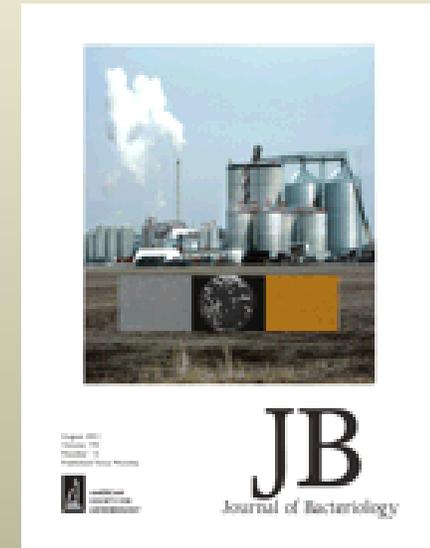
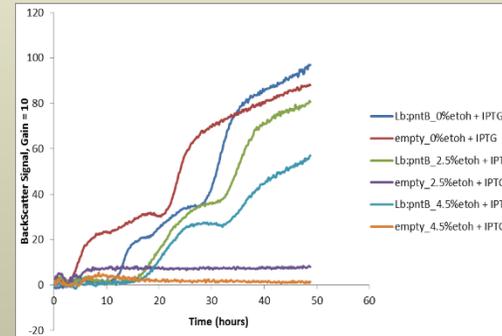


INCREASED ALCOHOL TOLERANCE USING THE *pntAB* GENE

A novel strain *Lactobacillus buchneri* NRRL B-30929, isolated from a commercial ethanol production plant, was found tolerant up to 14% ethanol. Complete genome sequence of NRRL B-30929 and further comparison analyses with *Oenococcus oeni* genome led to the identification of *pntAB* locus. The methods of *pntAB* genes confer ethanol tolerance traits in other microbes are included in the invention. Dr. Siqing Liu et al., U.S. Patent Application SN 15/677,679
Docket No: 0195.16

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Benefits

- Robust alcohol tolerance genes can be introduced in other microbes to confer alcohol tolerance trait and increase survival in alcohol related stress environmental conditions
- Could result in higher product concentrations and improve product recovery

Applications

- Developing microbes with increased ethanol tolerance particularly in wine making and in industrial ethanol fermentation. Strains that tolerate higher alcohol concentrations can reduce production cost and increase production efficiency for industrial fermentation.