



**Fig.S1** pH changes during the fermentation of *Lactocaseibacillus rhamnosus* HF01

**Table S1.** Tolerance of *Lactocaseibacillus rhamnosus* HF01 to bile salt

Bile salt content (%)	Strain survival rate (%)
0.1	72.31±1.24
0.2	66.25±1.34
0.3	57.58±1.25
0.4	52.1±1.23
0.5	50.24±1.41

**Table S2.** Tolerance of *Lactocaseibacillus rhamnosus* HF01 to acid

pH	Strain survival rate (%)
pH 2	0
pH 2.5	68.25±1.18
pH 3	71.36±1.01
pH 3.5	96.21±0.87
pH 4	97.63±0.56