

Bifidobacterium animalis subsp. *lactis* HN019, B420

TTTCGATGGTTTCGCACAGTGA GTTGTTCACTC CCCTCAATGAAGCTCCGAAGCCGAGACTTCGGAGAT TT
CGTCTC CTCCCTGCGCCGCTGATTGACCTGTTT CCCTCAATGAAGCTCCGAAGCCGAGACTTCGGAGAT
ATTTCAGGCGGCATCAGACC

158 bp

Bifidobacterium animalis subsp. *lactis* BI04, Bi07

TTTCGATGGTTTCGCACAGTGA GTTGTTCACTC CCCTCAATGAAGCTCCGAAGCCGAGACTTCGGAGAT TT
CGTCTC CTCCCTGCGCCGCTGATTGACCTGTTT CCCTCAATGAAGCTCCGAAGCCGAGACTTCGGAGAT
GTGATCCACGTGACGAATCATGGGCCGAGGGATT CCCTCAATGAAGCTCCGAAGCCGAGACTTCGGAG
AT GTCTCATCAGCGGCCGCCACGGGTATCAATCTCAAT CCCTCAATGAAGCTCCGAAGCCGAGACTTCGG
AGAT CCATTCCACCGTTTCGGCGTATTTCGACACCACAGTG CCCTCAATGAAGCTCCGAAGCCGAGACTT
CGGAGAT ATTTCAGGCGGCATCAGACC

372 bp



Figure S1. *Bifidobacterium animalis* subsp. *lactis* qPCR amplicons, showing CRISPR-cas repeats that were targeted for assay design. The assay described in this manuscript detects both strains HN019 and B420 (158 bp amplicon) with the same efficiency (~90%). Strains BI-04 and Bi-07 (372 bp amplicon) are not detectable if either HN019 or B420 are present.

Table S1. *Bifidobacterium animalis* subsp. *lactis* HN019 qPCR assay optimization: panel of bacterial strains tested for amplification at 1 ng of total DNA.

Bacteria	Detection (Yes/No)
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> HN019	Yes
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> B420	Yes
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> BI-04	Yes *
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> Bi-07	Yes *
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> DSM15954	No
<i>Bifidobacterium breve</i> Bb-03	No
<i>Bifidobacterium longum</i> DGS	No
<i>Bifidobacterium infantis</i> Bi-26	No
<i>Butyrivibrio fibrisolvens</i> DSM 3071	No
<i>Clostridium leptum</i> DSM 753	No
<i>Escherichia coli</i> K88	No
<i>Faecalibacterium prausnitzii</i> DSM 107838	No
<i>Lactobacillus acidophilus</i> NCFM	No
<i>Lactocaseibacillus rhamnosus</i> ATCC53103	No

* Assay detects strains BI-04 and Bi-07 when each strain is solely present, when mixed (1:1) with either HN019 or B420 the signal corresponds to the amount of present HN019 or B420 only. The amplification efficiency difference is enough to discriminate the two groups of *Bifidobacterium lactis* strains.