

Table S1. Average values and standard deviations (Mean \pm STDV) ($n = 3$) of the acidity parameters, pH and total titratable acidity (TTA), and total lactic acid bacteria (LAB) viable counts in the milk permeate (MP) samples throughout fermentation ($t_{\text{sampling}} = 0, 6, 12, 24, 48$ h).

Nonfermented Milk Permeate Samples	pH	TTA ($^{\circ}\text{N}$)	LAB viable counts [(log ₁₀ (CFU mL ⁻¹)]
MPNF	5.8 \pm 0.8	3.0 \pm 0.1	nd

LAB—lactic acid bacteria; CFU—colony-forming units; TTA—total titratable acidity; nd—not detected. MPNF—nonfermented milk permeate.

Table S2. Average values and standard deviations (Mean \pm STDV) ($n = 3$) of the diameter of inhibition zones (mm) of the nonfermented milk permeate (MP) against 15 pathogenic and opportunistic bacterial strains.

Samples	Diameter of Inhibition zones (DIZ) (mm)														
	Pathogenic and Opportunistic Bacterial Strains														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Without apple by-products														
MPNF	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

MPNF—nonfermented milk permeate; nd—not detected; 1—*Klebsiella pneumoniae*; 2—*Salmonella enterica*; 3—*Pseudomonas aeruginosa*; 4—*Acinetobacter baumannii*; 5—*Proteus mirabilis*; 6—MRSA M87fox; 7—*Enterococcus faecalis*; 8—*Enterococcus faecium*; 9—*Bacillus cereus*; 10—*Streptococcus mutans*; 11—*Enterobacter cloacae*; 12—*Citrobacter freundii*; 13—*Streptococcus epidermidis*; 14—*Staphylococcus haemolyticus*; 15—*Pasteurella multocida*.

Table S3. Average values and standard deviations (Mean \pm STDV) ($n = 3$) of the antimicrobial activities of the nonfermented milk permeate (NFMP) against 15 pathogenic and opportunistic microbial bacterial in liquid medium (+ indicates pathogen growth; - indicates that pathogen growth was not established).

Samples	Growth (+) or Growth Absence (-) of Pathogenic and Opportunistic Bacteria															Number of the inhibited pathogens
	Pathogenic and Opportunistic Bacterial Strains															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	Experimental design: 0.5 mL tested sample + 0.1 mL pathogen															
MPNF	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	0
Pathogen control	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
LAB control	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-

MPNF—non-fermented milk permeate; 1—*Klebsiella pneumoniae*; 2—*Salmonella enterica*; 3—*Pseudomonas aeruginosa*; 4—*Acinetobacter baumannii*; 5—*Proteus mirabilis*; 6—MRSA M87fox; 7—*Enterococcus faecalis*; 8—*Enterococcus faecium*; 9—*Bacillus cereus*; 10—*Streptococcus mutans*; 11—*Enterobacter cloacae*; 12—*Citrobacter freundii*; 13—*Streptococcus epidermidis*; 14—*Staphylococcus haemolyticus*; 15—*Pasteurella multocida*.