

CULTURE PROFILE

Lactobacillus acidophilus

First described 1900 · Biosafety risk group 1 · NCBI TaxID 1579 · 345 evidence sentences · 65 sources

cellular organisms; Bacteria; Bacillati; Bacillota; Bacilli; Lactobacillales; Lactobacillaceae; Lactobacillus

UNREVIEWED — not verified by a microbiologist

At a glance

1	Media used	MRS agar/broth; Reinforced clostridial medium; M17 medium; Tinsdale / cystine-tellurite; +6 more	high
2	Optimum temperature for growth	6–55 °C	high
3	Time required to grow	1-42 d	high
4	Colony morphology	Grey to black-pigmented colonies were identified using conventional microbiological methods and the VITEK 2 Compact system.	low
5	Gram character	Gram-positive	high
6	Biochemical tests for identification	16S rRNA gene sequencing; VITEK 2; Tween 80 hydrolysis; Haemolysis pattern; +10 more	high

1

Media used

high confidence

- MRS agar/broth

High · score 101.04 · 6 sources

"The experiments monitored the time evolution of bacterial populations grown on two different cultivation media (single source of carbon-SSCM and de Man, Rogosa and Sharpe-MRS broth media) which stimulated different proliferation conditions."

Mathematical Modeling of Escherichia coli and Lactobacillus acidophilus Growth Based on E... — PubMed (NCBI E-utilities), 2025
- Reinforced clostridial medium

Moderate · score 6.99 · 2 sources

"A modified reinforced clostridial medium for the isolation and enumeration of Lactobacillus delbrueckii ssp. bulgaricus in a mixed culture.."

A modified reinforced clostridial medium for the isolation and enumeration of Lactobacill... — PubMed (NCBI E-utilities), 2020
- M17 medium

Low · score 6.48 · 1 source

"M17 agar: In accordance with manufacturer's instructions, 55 g of commercial M17 agar (Merck), which contained 5.0 g of lactose monohydrate, was suspended in 1000 mL of distilled water, then mixed thoroughly and brought gently to the boil under frequent agitation."

Evaluation of culture media for selective enumeration of bifidobacteria and lactic acid b... — PubMed Central (open access), 2014
- Tinsdale / cystine-tellurite

Low · score 6.21 · 1 source

"Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings.."

Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings. — Europe PMC, 2026
- Loeffler serum slope

Low · score 2.48 · 1 source

"To shorten diagnostic turnaround time, study adopted primary inoculation on selective Tinsdale medium and Loeffler's Serum Slope (LSS) for rapid growth."

Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings. — Europe PMC, 2026
- Thioglycollate broth

Low · score 1.44 · 1 source

"Cultures of *L. acidophilus* were grown at 37 degrees C in lactobacilli MRS broth supplemented with sodium thioglycollate, sodium taurocholate, and cholesterol (cholesterol phosphatidyl choline micelles)."

Relationships Among Bile Tolerance, Bile Salt Deconjugation, and Assimilation of Choleste... — OpenAlex, 1993

• Nutrient agar

Low · score 1.34 · 2 sources

"The OD600 results were verified by the bacteria plating method on nutrient agar."

Impact of Electro-Activated Whey on Growth, Acid and Bile Resistance of *Lactobacillus Rha*... — Crossref, 2022

• Wilkins-Chalgren anaerobe agar

Low · score 0.81 · 1 source

"Recent studies also indicated that mupirocin agars such as Wilkins-Chalgren agar containing 100 mg/L of mupirocin (Rada and Koc, 2000), MRS agar fortified with cysteine hydrochloride (0.05%, w/v) and mupirocin at 50 mg/L (Simpson et al. , 2004), and Transoligosaccharide propionate agar supplemented with 50 mg/L of mupirocin (Ghoddusi and Hassan, 2011 ; ISO and IDF, 2010 ; Kolakowski et al. , 2010) are the most suitable media for isolation and selective enumeration of bi"

Evaluation of culture media for selective enumeration of bifidobacteria and lactic acid b... — PubMed Central (open access), 2014

• Marine agar 2216

Low · score 0.81 · 1 source

"Corresponding author (rohjaesook@hanyang.ac.kr) 9 2011 30 9 2011 49 3 202216 295 298 07 6 2011 25 7 2011 30 7 2011 01 09 2011 09 11 2011 11 05 2024 © 2011, Korean Society for Parasitology 2011 <https://creativecommons.org/licenses/by-nc/3.0/> This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted non-commercial use, distribution, and repr"

Lactobacillus acidophilus Contributes to a Healthy Environment for Vaginal Epithelial Cells — PubMed Central (open access), 2011

• Mueller-Hinton agar

Low · score 0.78 · 1 source

"Standardized 0.5 McFarland inocula of *E. faecalis* , *C. albicans* , and *S. aureus* were lawn-cultured on Mueller-Hinton agar."

Evaluation of the antimicrobial activity of *Lactobacillus acidophilus* LA-5 against Entero... — bioRxiv / medRxiv (via Europe PMC), 2026

2 Optimum temperature for growth

high confidence

6–55 °C

High · score 26.4 · 5 sources

"Growth and tolerance tests confirmed adaptation to wide temperature (6 to 55 °C), pH (2.3 to 7.3), and NaCl (1 to 6%) ranges."

Technological and molecular profiling of lactic flora in Hamra ewe's milk cheese from the... — Europe PMC, 2026

"In addition, its optimal culture conditions were 3% inoculum (v / v); culture temperature 37 °C; initial pH 6.5; and medium composition of 30.18 g/L glucose, 37.35 g/L soybean peptone, 18.68 g/L fish peptone, 2.46 g/L sodium citrate, 6.125 g/L sodium acetate, 2.46 g/L K 2 HPO 4 , 0.4 g/L MgSO 4 · 7H 2 O, 0.04 g/L MnSO 4 · 5H 2 O, 0.01 g/L serine, and 0.3 g/L uracil."

In Vitro Evaluation of Intestinal Transport and High-Density Fermentation of *Lactobacillu*... — PubMed (NCBI E-utilities), 2023

"Incubated at 37 °C, the nonselective MRS media provided optimum growth conditions for many of the strains."

Evaluation of culture media for selective enumeration of bifidobacteria and lactic acid b... — PubMed Central (open access), 2014

79.2 °C

Low · score 1.22 · 1 source

"The optimum liquefaction enzyme dosage, temperature, and time determined by Box-Behnken design response surface methodology (BBD-RSM) were 9 mL/L of alpha-amylase, 79.2 °C, and 5 h of reaction, respectively."

Optimization of *Lactobacillus acidophilus* cultivation using taro waste and evaluation of ... — PubMed (NCBI E-utilities), 2016

60 °C

Low · score 1.22 · 1 source

"The optimum temperature and reaction time for saccharification were determined as 60 °C and 3 h."

Optimization of *Lactobacillus acidophilus* cultivation using taro waste and evaluation of ... — PubMed (NCBI E-utilities), 2016

4 °C

Low · score 0.46 · 1 source

"The viability of *L. acidophilus* cells encapsulated by spray drying technology stored at refrigerated condition (4 °C) is higher than the viability of cells stored at room temperature (25 °C). === Quorum sensing === Quorum sensing among cells is the process among which cell signaling can lead to coordinated activities which can ultimately help bacteria control gene expression in a consecutive sequence."

Lactobacillus acidophilus — Wikipedia, 2026

3 Time required to grow

high confidence

1-42 d

High · score 83.49 · 9 sources

"Four dietary treatments, consisting of the basal diet (control), basal diet + 0.05, 0.10, or 0.15% *Lactobacillus* culture (LC), were fed to 2,000 Arbor Acres broiler chicks from 1 to 42 d of age (DOA)."

Growth performance, intestinal microbial populations, and serum cholesterol of broilers f... — OpenAlex, 1998

"In addition, transcriptional activity of all mentioned CTAs except AKAP4 was significantly decreased after 24 hour treatment with culture supernatants."

Lactobacillus acidophilus and *Lactobacillus crispatus* culture supernatants downregulate e... — PubMed (NCBI E-utilities), 2014

"The anti-cancer effects of 24h and 48h culture supernatants at various concentrations (1.25, 2.5, 5, 10 and 20 µg/ml) were determined by various in vitro and in vivo assays including MTT, tumor volume measurement as well as 99m Tc-MIBI biodistribution in MCF-7 tumor bearing nude mice and histopathology test."

Evaluation of Anti-Tumor Potential of *Lactobacillus acidophilus* ATCC4356 Culture Supernat... — PubMed (NCBI E-utilities), 2021

2-3 d

High · score 39.02 · 4 sources

"John F. Alderete JF, Texas University, USA) [9] were cultured at 37 °C in a 5% CO₂ atmosphere in DMEM (WelGene, Daegu, Korea) supplemented with 10% FBS (WelGene) and 0.5% penicillin-streptomycin (GenDEPOT, Barker, Texas, USA) in a humidified atmosphere for 2-3 days."

Lactobacillus acidophilus Contributes to a Healthy Environment for Vaginal Epithelial Cells — PubMed Central (open access), 2011

"Isolates were inoculated into broth containing sodium oxalate (5 mg/L) and incubated anaerobically for 72 hours."

Assessment of in vitro oxalate degradation by *Lactobacillus* species cultured from veterin... — PubMed (NCBI E-utilities), 2015

"*Streptococcus thermophilus* TH-4 and *S. thermophilus* DSM 20479 were propagated in CASO broth at 37 °C for 48 h under aerobic conditions; *Lc. lactis* subsp. *lactis* ATCC 19435, *Lc. lactis* subsp. *lactis* biovar. *diacetylactis* VK-256, and *Ln. mesenteroides* subsp. *dextranicum* ATCC 19255 were grown in CASO broth at 30 °C for 72 h aerobically; whereas the rest of the strains tested in this study were incubated in MRS broth at 37 °C for 72 h in anaerobiosis."

Evaluation of culture media for selective enumeration of bifidobacteria and lactic acid b... — PubMed Central (open access), 2014

16-24 h

High · score 37.33 · 9 sources

"*L. acidophilus* was grown in 20 ml of MRS broth (Difco Laboratories, Detroit, Michigan, USA) at 37 °C in a 5% CO₂ incubator for 16 to 24 hr."

Lactobacillus acidophilus Contributes to a Healthy Environment for Vaginal Epithelial Cells — PubMed Central (open access), 2011

"In addition, transcriptional activity of all mentioned CTAs except AKAP4 was significantly decreased after 24 hour treatment with culture supernatants."

Lactobacillus acidophilus and *Lactobacillus crispatus* culture supernatants downregulate e... — PubMed (NCBI E-utilities), 2014

"The anti-cancer effects of 24h and 48h culture supernatants at various concentrations (1.25, 2.5, 5, 10 and 20 µg/ml) were determined by various in vitro and in vivo assays including MTT, tumor volume measurement as well as 99m Tc-MIBI biodistribution in MCF-7 tumor bearing nude mice and histopathology test."

Evaluation of Anti-Tumor Potential of *Lactobacillus acidophilus* ATCC4356 Culture Supernat... — PubMed (NCBI E-utilities), 2021

18-24 h

High · score 35.33 · 9 sources

"CFS solutions (300-50 mg/mL) were tested alongside chlorhexidine and sterile water controls and incubated for 18-24 h at 37 °C."

Evaluation of the antimicrobial activity of *Lactobacillus acidophilus* LA-5 against Entero... — bioRxiv / medRxiv (via Europe PMC), 2026

"In addition, transcriptional activity of all mentioned CTAs except AKAP4 was significantly decreased after 24 hour treatment with culture supernatants."

Lactobacillus acidophilus and *Lactobacillus crispatus* culture supernatants downregulate e... — PubMed (NCBI E-utilities), 2014

"The anti-cancer effects of 24h and 48h culture supernatants at various concentrations (1.25, 2.5, 5, 10 and 20 µg/ml) were determined by various in vitro and in vivo assays including MTT, tumor volume measurement as well as 99m Tc-MIBI biodistribution in MCF-7 tumor bearing nude mice and histopathology test."

Evaluation of Anti-Tumor Potential of *Lactobacillus acidophilus* ATCC4356 Culture Supernat... — PubMed (NCBI E-utilities), 2021

4 Colony morphology

low confidence

Grey to black-pigmented colonies were identified using conventional microbiological methods and the VITEK 2 Compact system.

Low · score 1.32 · 1 source

"Grey to black-pigmented colonies were identified using conventional microbiological methods and the VITEK 2 Compact system."

Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings. — Europe PMC, 2026

Comparison of Streptococcus mutans load among the study groups showed a statistically significant difference in colony counts between the three groups (p Lactobacillus acidophilus colonies also demonstrated a statistically significant difference among the three groups (p Conclusion : A gluten-containing diet in patients with celiac disease is associated with an increased load of cariogenic bacteria in saliva.

Low · score 1.21 · 1 source

"Comparison of Streptococcus mutans load among the study groups showed a statistically significant difference in colony counts between the three groups (p Lactobacillus acidophilus colonies also demonstrated a statistically significant difference among the three groups (p Conclusion : A gluten-containing diet in patients with celiac disease is associated with an increased load of cariogenic bacteria in saliva."

Correlation between Bacterial Load of Streptococcus Mutans and Lactobacillus with Gluten... — bioRxiv / medRxiv (via Europe PMC), 2026

As Tinsdale medium is known to produce standout colony characteristics for rapid identification, we exploited the ability of Tinsdale medium to form characteristic grey to black colonies of Corynebacterium genus.

Low · score 1.09 · 1 source

"As Tinsdale medium is known to produce standout colony characteristics for rapid identification, we exploited the ability of Tinsdale medium to form characteristic grey to black colonies of Corynebacterium genus."

Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings. — Europe PMC, 2026

Results Of the 50 specimens processed, 35 (70.0%) yielded colonies with grey-black pigmentation on Tinsdale medium; none of these isolates was finally identified as Corynebacterium.

Low · score 1.09 · 1 source

"Results Of the 50 specimens processed, 35 (70.0%) yielded colonies with grey-black pigmentation on Tinsdale medium; none of these isolates was finally identified as Corynebacterium."

Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings. — Europe PMC, 2026

5 Gram character

high confidence

Gram-positive

High · score 27.4 · 7 sources

"Lactobacillus acidophilus (ATCC 4796) Gram-positive bacteria and Escherichia coli (K12-MG1655) Gram-negative bacteria are two microorganisms that can interact accidentally in the dairy food chain process or in different human pathologies."

Mathematical Modeling of Escherichia coli and Lactobacillus acidophilus Growth Based on E... — PubMed (NCBI E-utilities), 2025

"Though first thought to be a phenomenon associated with Gram-negative bacteria, vesicle production in Staphylococcus aureus, Lactobacillus plantarum, and other Gram-positives has recently been described."

Isolation and characterization of Lactobacillus-derived membrane vesicles. — PubMed (NCBI E-utilities), 2019

"All isolates were Gram-positive, catalase-negative, and predominantly rod-shaped. rep-PCR analysis revealed strain homogeneity in most products, whereas others (products A and K) exhibited heterogeneous microbial compositions."

Isolation, Identification, and Validation of Strains from Commercial Probiotics: Do We Ge... — PubMed (NCBI E-utilities), 2026

Gram-negative

High · score 24.98 · 8 sources

"Lactobacillus acidophilus (ATCC 4796) Gram-positive bacteria and Escherichia coli (K12-MG1655) Gram-negative bacteria are two microorganisms that can interact accidentally in the dairy food chain process or in different human pathologies."

Mathematical Modeling of Escherichia coli and Lactobacillus acidophilus Growth Based on E... — PubMed (NCBI E-utilities), 2025

"Though first thought to be a phenomenon associated with Gram-negative bacteria, vesicle production in Staphylococcus aureus, Lactobacillus plantarum, and other Gram-positives has recently been described."

Isolation and characterization of Lactobacillus-derived membrane vesicles. — PubMed (NCBI E-utilities), 2019

"The two CFSs elicited varying degrees of activity against three gram-negative bacteria."

Initial culture media pH influences the antibacterial activity and metabolic footprint of... — PubMed (NCBI E-utilities), 2024

Sources disagree: "Gram-positive" (score 27.4) versus "Gram-negative" (score 24.98). Both are shown; a reviewer should decide.

6 Biochemical tests for identification

high confidence

• 16S rRNA gene sequencing

High · score 10.3 · 3 sources

"The two isolates were identified by morphological, biochemical properties and then by 16S rRNA gene sequencing technique as Lactobacillus acidophilus SAM1 and Lactiplantibacillus plantarum SAM2."

Identification of Lactobacillus strains from human mother milk and cottage cheese reveale... — PubMed (NCBI E-utilities), 2022

• VITEK 2

Moderate · score 6.23 · 2 sources

"Bacterial identification and antibiotic susceptibility testing for 16 antibiotics were performed using the VITEK2 system."

Lactobacillus acidophilus VB1 co-aggregates and inhibits biofilm formation of chronic oti... — PubMed (NCBI E-utilities), 2024

• Tween 80 hydrolysis

Moderate · score 5.04 · 2 sources

"The results indicated that glucose ($p = 0.01510$) as negative factor and K_2HPO_4 ($p = 0.02017$) as positive effect were the significant growth factors of Lactobacillus acidophilus, CH_3COONa ($p = 0.09273$) as positive effect was an important factor, and the optimized medium was as follows: glucose - 21 g/L, K_2HPO_4 - 3.5 g/L, CH_3COONa - 6.5 g/L, peptone - 10 g/L, beef extract - 8 g/L, yeast extract powder - 8 g/L, $C_6H_{14}O_7N_2$ - 2 g/L, $MgSO_4$ - 0.2 g/L and Tween-80 - 1 mL/L when the ma"

Optimization of the medium for Lactobacillus acidophilus by Plackett-Burman and steepest ... — PubMed (NCBI E-utilities), 2015

• Haemolysis pattern

Moderate · score 4.86 · 4 sources

"When grown in (S. platenis + glucose) medium, L. acidophilus LB produced the highest lactic acid concentration of 18.24 ± 2.43 mg/mL and survived in extreme conditions such as 4% NaCl, pH 1.0-2.0, and 50 °C, and inhibited $99.82 \pm 0.24\%$ of Vibrio parahaemolyticus population after 2 days of treatment."

Enhancement of Bioactive Compounds and Survival of Lactobacillus acidophilus Grown in the... — PubMed (NCBI E-utilities), 2024

• Starch hydrolysis

Moderate · score 4.74 · 3 sources

"The optimum liquefaction enzyme dosage, temperature, and time determined by Box-Behnken design response surface methodology (BBD-RSM) were 9 mL/L of alpha-amylase, 79.2 °C, and 5 h of reaction, respectively."

Optimization of Lactobacillus acidophilus cultivation using taro waste and evaluation of ... — PubMed (NCBI E-utilities), 2016

• Antibiotic susceptibility profile

Low · score 4.27 · 3 sources

"Bacterial identification and antibiotic susceptibility testing for 16 antibiotics were performed using the VITEK2 system."

Lactobacillus acidophilus VB1 co-aggregates and inhibits biofilm formation of chronic oti... — PubMed (NCBI E-utilities), 2024

• Catalase — reported negative

Low · score 4.21 · 2 sources

"All isolates were Gram-positive, catalase-negative, and predominantly rod-shaped. rep-PCR analysis revealed strain homogeneity in most products, whereas others (products A and K) exhibited heterogeneous microbial compositions."

Isolation, Identification, and Validation of Strains from Commercial Probiotics: Do We Ge... — PubMed (NCBI E-utilities), 2026

• Lipase

Low · score 3.93 · 3 sources

"Lactobacillus acidophilus SAM1 produces lipase enzyme, while Lactiplantibacillus plantarum SAM2 produces amylase and protease."

Identification of Lactobacillus strains from human mother milk and cottage cheese reveale... — PubMed (NCBI E-utilities), 2022

• Pigment production

Low · score 2.95 · 1 source

"Grey to black-pigmented colonies were identified using conventional microbiological methods and the VITEK 2 Compact system."

Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings. — Europe PMC, 2026

• PYR (pyrrolidonyl arylamidase)

Low · score 2.09 · 1 source

"The cell recovery and bacterial counts of L. delbrueckii ssp. bulgaricus in tested products (pure L. delbrueckii ssp. bulgaricus strains, starter culture, probiotic supplements, and yogurt) using our mRCM with sodium pyruvate (mRCM-PYR) were significantly higher than in the recently modified RCM and the common de Man, Rogosa, and Sharpe (MRS) culture medium."

A modified reinforced clostridial medium for the isolation and enumeration of Lactobacill... — PubMed (NCBI E-utilities), 2020

- Carbohydrate fermentation panel

Low · score 1.8 · 1 source

"We assessed the colony morphology, growth, acid production, and carbohydrate fermentation abilities of the recombinant *L. acidophilus* strain."

Biochemical characterization of a recombinant *Lactobacillus acidophilus* strain expressing... — PubMed (NCBI E-utilities), 2018

- Short-chain fatty acid profile (GLC)

Low · score 1.8 · 1 source

"The biological application results showed that the antioxidant capacity of S-L was stronger than XOS, while XOS was superior in promoting growth of intestinal *Bifidobacteria adolescentis* and stimulating production of short-chain fatty acids by *Lactobacillus acidophilus*."

A sustainable process for procuring biologically active fractions of high-purity xyloolig... — DOAJ, 2019

7 References

1. Black coloured colonies on Tinsdale medium: A challenge in resource-limited settings. 2026
MED:42637039 doi:10.1016/j.ijmm.2026.101271 · via Europe PMC · supported: Media used, Colony morphology, Biochemical tests for identification
2. Bio-process development for sustainable, large-scale production of LAB-oligosaccharides as a potential anti-colon-cancer metabolites produced by *Lactobacillus acidophilus* 20079. 2026
MED:42601610 doi:10.1186/s12934-026-03067-x · via Europe PMC · supported: Time required to grow, Biochemical tests for identification
3. Synergistic Modulation of Gut Microbiota by Bioactive Peptides and Probiotics: A Novel Approach Towards Better Health Outcomes 2026
PPR:PPR1300798 doi:10.20944/preprints202608.1160.v1 · via Europe PMC · supported: Time required to grow, Gram character
4. Isolation, Identification, and Validation of Strains from Commercial Probiotics: Do We Get What We Expect? 2026
PMID:41750869 · via PubMed (NCBI E-utilities) · supported: Gram character, Biochemical tests for identification
5. Probiotic potential of *Lactobacillus acidophilus* TMPC 41127 isolated from traditional cheese in inhibiting *Salmonella Typhimurium* biofilms and virulence genes. 2026
MED:42071076 doi:10.1038/s41598-026-51296-2 · via Europe PMC · supported: Biochemical tests for identification
6. Technological and molecular profiling of lactic flora in Hamra ewe's milk cheese from the Algerian steppe. 2026
MED:41979736 doi:10.1007/s44463-026-00064-x · via Europe PMC · supported: Time required to grow, Optimum temperature for growth
7. Rifaximin Protects Against Inflammation and Fibrosis in MASH: Any Role for Ethanol-Producing Bacteria? 2026
MED:41754423 doi:10.3390/pathogens15020170 · via Europe PMC · supported: Time required to grow
8. Comparative evaluation of fluoridated, nonfluoridated, and herbal dentifrices with digital oral health intervention on salivary cariogenic microorganisms and alpha-amylase levels in children with severe early childhood caries. 2026
MED:42641096 doi:10.4103/jisppd.jisppd_155_26 · via Europe PMC · supported: Biochemical tests for identification
9. Effect of Herbal Extracts on Lactic Acid Bacteria Growth, Acidification and Viability in Fermented Milk and Plant-Based Beverages 2026
00452c34c0284f1b81554fb7e98fdda5 · via DOAJ · supported: Time required to grow
10. A preliminary antimicrobial investigation of *Lactobacillus bulgaricus* probiotic supernatants as an intracanal medication against mature *E. faecalis* biofilm in an ex-vivo dentin blocks model. 2026
MED:42702682 doi:10.1007/s00784-026-07125-x · via Europe PMC · supported: Time required to grow
11. Probiotic Supplementation as an Alternative to Antibiotics in Bovine Sperm Cryopreservation: Effects on Motility, Oxidative Stress and Apoptosis. 2026
MED:41853987 doi:10.1111/rda.70197 · via Europe PMC · supported: Biochemical tests for identification
12. Evaluation of the antimicrobial activity of *Lactobacillus acidophilus* LA-5 against *Enterococcus faecalis*, *Candida albicans* and *Staphylococcus aureus*: An in-vitro study 2026
PPR:PPR1178238 · via bioRxiv / medRxiv (via Europe PMC) · supported: Media used, Time required to grow
13. Isolation and Optimization of Bacteriocin-Producing Lactic Acid Bacteria from Nigerian Fermented Foods 2026
PPR:PPR1254257 · via bioRxiv / medRxiv (via Europe PMC) · supported: Media used, Biochemical tests for identification
14. Mechanism Study on *Lactobacillus acidophilus* Inhibiting Cholesterol Gallstone Formation by Regulating FXR-TLR4/NF-κB Pathway and Intestinal Barrier Function 2026
PPR:PPR1159732 · via bioRxiv / medRxiv (via Europe PMC) · supported: Time required to grow
15. Correlation between Bacterial Load of *Streptococcus Mutans* and *Lactobacillus* with Gluten-rich or gluten-free diet in patients with celiac disease 2026
PPR:PPR1175622 · via bioRxiv / medRxiv (via Europe PMC) · supported: Colony morphology
16. Accelerated Urothelial Regeneration and Immune Stabilization via Adjuvant Probiotic Therapy in Non-Muscle-Invasive Bladder Cancer 2026
PPR:PPR1243060 · via bioRxiv / medRxiv (via Europe PMC) · supported: Time required to grow
17. *Lactobacillus acidophilus* 2026
wikipedia:965861 · via Wikipedia · supported: Gram character, Optimum temperature for growth
18. Mathematical Modeling of *Escherichia coli* and *Lactobacillus acidophilus* Growth Based on Experimental Mixed Batch Cultivation 2025
PMC12692680 · via PubMed Central (open access) · supported: Media used, Time required to grow, Gram character
19. Mathematical Modeling of *Escherichia coli* and *Lactobacillus acidophilus* Growth Based on Experimental Mixed Batch Cultivation. 2025
PMID:41373656 · via PubMed (NCBI E-utilities) · supported: Gram character, Media used

20. Enhancement of Bioactive Compounds and Survival of *Lactobacillus acidophilus* Grown in the Omega-6, -7 Riched **2024**
Cyanobacteria *Spirulina platensis*.
PMID:39340578 · via PubMed (NCBI E-utilities) · supported: Media used, Time required to grow, Biochemical tests for identification
21. *Lactobacillus acidophilus* VB1 co-aggregates and inhibits biofilm formation of chronic otitis media-associated pathogen: **2024**
PMID:38789905 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification, Time required to grow
22. Initial culture media pH influences the antibacterial activity and metabolic footprint of *Lactobacillus acidophilus* BIOTEC **2024**
1900.
PMID:37671992 · via PubMed (NCBI E-utilities) · supported: Media used, Gram character
23. Culture Age, Growth Medium, Ultrasound Amplitude, and Time of Exposure Influence the Kinetic Growth of *Lactobacillus acidophilus* **2023**
doi:10.3390/fermentation9010063 · via Crossref · supported: Media used, Time required to grow
24. Inhibitory effect of Probiotics on some Gram positive and negative Bacteria **2023**
007b55a18fbc4aa48291dc7e2fd976ae · via DOAJ · supported: Gram character, Biochemical tests for identification
25. In Vitro Evaluation of Intestinal Transport and High-Density Fermentation of *Lactobacillus acidophilus* . **2023**
PMID:37887401 · via PubMed (NCBI E-utilities) · supported: Optimum temperature for growth, Time required to grow
26. Development of a low pollution medium for the cultivation of lactic acid bacteria. **2023**
PMID:38094054 · via PubMed (NCBI E-utilities) · supported: Media used
27. Feruloyl Esterase (La Fae) from *Lactobacillus acidophilus* : Structural Insights and Functional Characterization for Application in Ferulic Acid Production. **2023**
PMID:37446348 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
28. Effect of *Lactobacillus acidophilus* on biofilm growth in cheese whey **2023**
doi:10.21603/1019-8946-2023-5-16 · via Crossref · supported: Gram character
29. Identification of *Lactobacillus* strains from human mother milk and cottage cheese revealed potential probiotic properties with enzymatic activity. **2022**
PMID:36581674 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
30. Evaluation of Probiotic Effects of *Lactobacilli* on Mutans Streptococci: An In Vitro Study. **2022**
PMID:37073910 · via PubMed (NCBI E-utilities) · supported: Time required to grow, Biochemical tests for identification
31. Impact of Electro-Activated Whey on Growth, Acid and Bile Resistance of *Lactobacillus Rhamnosus* Subsp., *Lactobacillus Rhamnosus* Gg and *Lactobacillus Acidophilus* Atcc4356 **2022**
doi:10.2139/ssrn.4007902 · via Crossref · supported: Media used, Time required to grow
32. Evaluation of Anti-Tumor Potential of *Lactobacillus acidophilus* ATCC4356 Culture Supernatants in MCF-7 Breast Cancer Cells **2021**
PMID:33292138 · via PubMed (NCBI E-utilities) · supported: Time required to grow
33. Mycotoxin Removal by *Lactobacillus* spp. and Their Application in Animal Liquid Feed. **2021**
PMID:33801544 · via PubMed (NCBI E-utilities) · supported: Media used, Time required to grow
34. A modified reinforced clostridial medium for the isolation and enumeration of *Lactobacillus delbrueckii* ssp. *bulgaricus* in mixed culture. **2020**
PMID:32307174 · via PubMed (NCBI E-utilities) · supported: Media used, Biochemical tests for identification
35. Effect of soybean oligopeptide on the growth and metabolism of *Lactobacillus acidophilus* JCM 1132. **2020**
PMID:35498845 · via PubMed (NCBI E-utilities) · supported: Media used
36. BIOTECHNOLOGICAL ASPECTS OF OBTAINING FERMENTED SOYBEAN PRODUCTS WITH INCREASED PHYTOESTROGENIC ACTIVITY **2020**
zenodo:3949881 · via Zenodo · supported: Time required to grow
37. Isolation and characterization of *Lactobacillus*-derived membrane vesicles. **2019**
PMID:30696852 · via PubMed (NCBI E-utilities) · supported: Gram character
38. A sustainable process for procuring biologically active fractions of high-purity xylooligosaccharides and water-soluble lignin from Moso bamboo prehydrolyzate **2019**
00533efd2f7b465aa130fba3587294f5 · via DOAJ · supported: Biochemical tests for identification
39. Biochemical characterization of a recombinant *Lactobacillus acidophilus* strain expressing exogenous FomA protein. **2018**
PMID:29747062 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
40. Optimization of *Lactobacillus acidophilus* cultivation using taro waste and evaluation of its biological activity. **2016**
PMID:26572522 · via PubMed (NCBI E-utilities) · supported: Optimum temperature for growth, Biochemical tests for identification
41. Assessment of in vitro oxalate degradation by *Lactobacillus* species cultured from veterinary probiotics. **2015**
PMID:26309108 · via PubMed (NCBI E-utilities) · supported: Time required to grow
42. Optimization of the medium for *Lactobacillus acidophilus* by Plackett-Burman and steepest ascent experiment. **2015**
PMID:28068030 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
43. Evaluation of culture media for selective enumeration of bifidobacteria and lactic acid bacteria **2014**
PMC4204943 · via PubMed Central (open access) · supported: Media used, Time required to grow, Optimum temperature for growth, Colony morphology
44. Cost effectiveness of cryoprotective agents and modified De-man Rogosa Sharpe medium on growth of *Lactobacillus acidophilus*. **2014**
PMID:25911832 · via PubMed (NCBI E-utilities) · supported: Media used
45. *Lactobacillus acidophilus* and *Lactobacillus crispatus* culture supernatants downregulate expression of cancer-testis genes in the MDA-MB-231 cell line. **2014**
PMID:24935380 · via PubMed (NCBI E-utilities) · supported: Time required to grow
46. *Lactobacillus acidophilus* Contributes to a Healthy Environment for Vaginal Epithelial Cells **2011**
PMC3210849 · via PubMed Central (open access) · supported: Media used, Time required to grow, Optimum temperature for growth
47. COMPARATIVE EVALUATION OF THE BACTEROCIN PRODUCING CHARACTERISTICS OF LACTIC ACID BACTERIA FROM SELECTED TRADITIONAL FERMENTED FOODS **2011**
zenodo:7281240 · via Zenodo · supported: Media used

48. **Survival of *Lactobacillus acidophilus* Encapsulated as Freeze-Dried Culture under Extreme Conditions** 2010
openaire · via OpenAIRE Explore · supported: Time required to grow, Optimum temperature for growth, Biochemical tests for identification, Media used
49. **Purification, characterisation and identification of acidocin LCHV, an antimicrobial peptide produced by *Lactobacillus acidophilus* n.v. Er 317/402 strain Narine.** 2010
PMID:20045288 · via PubMed (NCBI E-utilities) · supported: Gram character
50. **Supra-gingival microbiota in Sjögren's syndrome.** 2007
PMID:17609998 · via PubMed (NCBI E-utilities) · supported: Gram character, Biochemical tests for identification
51. **UL TRAFIL TERED SOFT CHEESE AS AFFECTED BY SOYMILK, *Lactobacillus acidophilus* STARTER AND CERTA FLAVOUR ADDITIVES** 2004
00be2bcea7b244c596d6eb3d3d257f3c · via DOAJ · supported: Time required to grow
52. **Selective Enumeration of *Lactobacillus delbrueckii* ssp. *bulgaricus*, *Streptococcus thermophilus*, *Lactobacillus acidophilus*, *Bifidobacteria*, *Lactobacillus casei*, *Lactobacillus rhamnosus*, and *Propionibacteria*** 2003
<https://openalex.org/W1980463869> · via OpenAlex · supported: Media used, Time required to grow
53. **Production of Free Conjugated Linoleic Acid by *Lactobacillus acidophilus* and *Lactobacillus casei* of Human Intestinal Origin** 2003
<https://openalex.org/W2155699890> · via OpenAlex · supported: Media used, Time required to grow
54. **Growth and lactic acid production by vaginal *Lactobacillus acidophilus* CRL 1259, and inhibition of uropathogenic *Escherichia coli*.** 2003
PMID:14614071 · via PubMed (NCBI E-utilities) · supported: Media used, Biochemical tests for identification
55. **Growth and lactic acid production by vaginal *Lactobacillus acidophilus* CRL 1259, and inhibition of uropathogenic *Escherichia coli*** 2003
<https://openalex.org/W1882254099> · via OpenAlex · supported: Media used, Biochemical tests for identification
56. **Growth kinetics of *Lactobacillus acidophilus* under ohmic heating** 2000
<https://openalex.org/W2171602682> · via OpenAlex · supported: Media used
57. **Viability of Probiotic (*Bifidobacterium*, *Lactobacillus acidophilus* and *Lactobacillus casei*) and Nonprobiotic Microflora in Argentinian Fresco Cheese** 2000
<https://openalex.org/W2024178028> · via OpenAlex · supported: Time required to grow
58. **Antagonistic Activity against *Helicobacter* Infection In Vitro and In Vivo by the Human *Lactobacillus acidophilus* Strain L** 1998
<https://openalex.org/W2149679556> · via OpenAlex · supported: Biochemical tests for identification
59. **Growth performance, intestinal microbial populations, and serum cholesterol of broilers fed diets containing *Lactobacillus* cultures** 1998
<https://openalex.org/W2041877157> · via OpenAlex · supported: Time required to grow
60. **Evaluation of Media for Selective Enumeration of *Streptococcus thermophilus*, *Lactobacillus delbrueckii* ssp. *bulgaricus*, *Lactobacillus acidophilus*, and *Bifidobacteria*** 1996
<https://openalex.org/W2041354280> · via OpenAlex · supported: Time required to grow, Media used
61. **Relationships Among Bile Tolerance, Bile Salt Deconjugation, and Assimilation of Cholesterol by *Lactobacillus acidophilus*** 1993
<https://openalex.org/W2032410474> · via OpenAlex · supported: Media used
62. **Factors to Consider When Selecting a Culture of *Lactobacillus acidophilus* as a Dietary Adjunct to Produce a Hypocholesterolemic Effect in Humans** 1990
<https://openalex.org/W2051447071> · via OpenAlex · supported: Media used
63. **Importance of Bile Tolerance of *Lactobacillus acidophilus* Used as a Dietary Adjunct** 1984
<https://openalex.org/W1965093946> · via OpenAlex · supported: Media used
64. **Growth Characteristics, Bile Sensitivity, and Freeze Damage in Colonial Variants of *Lactobacillus acidophilus* †** 1981
PMC243939 · via PubMed Central (open access) · supported: Media used, Gram character
65. **Microstructure of Colonies of Rod-Shaped Bacteria** 1971
PMC247093 · via PubMed Central (open access) · supported: Colony morphology, Gram character

How these values were derived

Each candidate value was scored as the sum, over every supporting sentence, of the source tier weight multiplied by how squarely the sentence asserts the value and by a recency factor. Culture collections and nomenclatural authorities carry weight 5.0, peer-reviewed literature 3.0, preprints 1.5, and encyclopedic sources 1.0. Confidence is reported as high only where a curated source and at least two independent sources agree. Where a runner-up scored above 60 per cent of the leader, both are shown and the field is flagged as a conflict rather than resolved automatically.

This report aggregates published evidence; it does not replace Bergey's Manual, the Manual of Clinical Microbiology, or the product sheet supplied with the strain. Every field is unreviewed until a microbiologist signs it off.