

CULTURE PROFILE

Staphylococcus agnetis

First described 2012 · Biosafety risk group 2 · NCBI TaxID 985762 · 157 evidence sentences · 50 sources

cellular organisms; Bacteria; Bacillati; Bacillota; Bacilli; Caryophanales; Staphylococcaceae; Staphylococcus

UNREVIEWED — not verified by a microbiologist

At a glance

1	Media used	Brain heart infusion (BHI); Blood agar; Tryptic soy broth (TSB); MacConkey agar; +2 more	high
2	Optimum temperature for growth	No evidence retrieved	none
3	Time required to grow	24 h	low
4	Colony morphology	All lesion swabs produced small, round, white, nonhemolytic, Gram-positive staphylococcus -like colonies on blood agar.	low
5	Gram character	Gram-positive	high
6	Biochemical tests for identification	Coagulase; MALDI-TOF MS; Haemolysis pattern; 16S rRNA gene sequencing; +8 more	high

1 Media used

high confidence

• Brain heart infusion (BHI)

High · score 10.8 · 4 sources

"The inhibitory activity of *S. agnetis* 3682 against 20 multidrug-resistant MRSA strains involved in human infections in two Brazilian hospitals was determined by the deferred antagonism assay on brain-heart infusion (BHI) agar plates."

Draft genome sequence of *Staphylococcus agnetis* 3682, the producing strain of the broad-s... — PubMed (NCBI E-utilities), 2019

• Blood agar

Moderate · score 7.15 · 2 sources

"All lesion swabs produced small, round, white, nonhemolytic, Gram-positive staphylococcus -like colonies on blood agar."

Role of *Staphylococcus agnetis* and *Staphylococcus hyicus* in the Pathogenesis of Buffalo F... — PubMed Central (open access), 2022

• Tryptic soy broth (TSB)

Moderate · score 5.73 · 2 sources

"Media included: CHROMagar Orientation (DRG International, Springfield Township, NJ), tryptic soy broth (Difco brand, Becton, Dickinson and Company, Franklin Lakes, NJ); and Luria broth (LB; per liter 10 g tryptone, 5 g yeast extract, 5 g NaCl)."

Embryo lethality assay as a tool for assessing virulence of isolates from bacterial chond... — PubMed Central (open access), 2021

• MacConkey agar

Low · score 3.73 · 1 source

"All the 2020 and 2021 isolates were reidentified by PCR, and no bacterial growth was observed following plating on MacConkey agar."

Role of *Staphylococcus agnetis* and *Staphylococcus hyicus* in the Pathogenesis of Buffalo F... — PubMed Central (open access), 2022

• Mannitol salt agar

Low · score 1.35 · 1 source

"Swabbing samples were mixed with 10 mL of sterile saline, agitated, and cultured on mannitol salt agar plates."

Cross-sectional study to identify staphylococcal species isolated from teat and inguinal ... — PubMed (NCBI E-utilities), 2018

• Chromogenic UTI / Orientation

Low · score 0.93 · 1 source

"Media included: CHROMagar Orientation (DRG International, Springfield Township, NJ), tryptic soy broth (Difco brand, Becton, Dickinson and Company, Franklin Lakes, NJ); and Luria broth (LB; per liter 10 g tryptone, 5 g yeast extract, 5 g NaCl)."
Embryo lethality assay as a tool for assessing virulence of isolates from bacterial chond... — PubMed Central (open access), 2021

2 Optimum temperature for growth

no evidence

No sentence in the retrieved literature supported this field. Nothing is asserted here.

3 Time required to grow

low confidence

24 h

Low · score 3.62 · 3 sources

"At 24 h, plates were read and up to 10 staphylococcal colonies were saved for further analysis."

Cross-sectional study to identify staphylococcal species isolated from teat and inguinal ... — PubMed (NCBI E-utilities), 2018

"Each swab was used to streak 5% (vol/vol) sheep blood agar and MacConkey agar within 24 h of collection."

Role of Staphylococcus agnetis and Staphylococcus hyicus in the Pathogenesis of Buffalo F... — PubMed Central (open access), 2022

"Plates were incubated at 37 °C for 24 h."

Role of Staphylococcus agnetis and Staphylococcus hyicus in the Pathogenesis of Buffalo F... — PubMed Central (open access), 2022

4 Colony morphology

low confidence

All lesion swabs produced small, round, white, nonhemolytic, Gram-positive staphylococcus -like colonies on blood agar.

Low · score 2.42 · 1 source

"All lesion swabs produced small, round, white, nonhemolytic, Gram-positive staphylococcus -like colonies on blood agar."

Role of Staphylococcus agnetis and Staphylococcus hyicus in the Pathogenesis of Buffalo F... — PubMed Central (open access), 2022

A normal skin swab from one H4 animal produced only one colony of Staphylococcus sp., while BF washings from one animal and homogenized BFs from two animals yielded two staphylococcus -like colonies and heavy staphylococcus -like growth, respectively.

Low · score 2.42 · 1 source

"A normal skin swab from one H4 animal produced only one colony of Staphylococcus sp., while BF washings from one animal and homogenized BFs from two animals yielded two staphylococcus -like colonies and heavy staphylococcus -like growth, respectively."

Role of Staphylococcus agnetis and Staphylococcus hyicus in the Pathogenesis of Buffalo F... — PubMed Central (open access), 2022

5 Gram character

high confidence

Gram-positive

High · score 43.73 · 7 sources

"Thirteen Gram-positive-staining coagulase-variable staphylococci were isolated from subclinical and mild clinical mastitic bovine milk (n=12) and a teat apex (n=1)."

Staphylococcus agnetis sp. nov., a coagulase-variable species from bovine subclinical and... — PubMed (NCBI E-utilities), 2012

"Here we report the draft genome sequence of Staphylococcus agnetis 4244, a strain involved in bovine mastitis, and its ability to inhibit different species of antibiotic-resistant Gram-positive bacteria owing to bacteriocin production."

Draft genome sequence of Staphylococcus agnetis 4244, a strain with gene clusters encodin... — PubMed (NCBI E-utilities), 2021

"Staphylococcus agnetis 4244 was able to inhibit all 44 strains of antibiotic-resistant Gram-positive bacteria tested in this study, including vancomycin-resistant enterococci (VRE), methicillin-resistant Staphylococcus aureus (MRSA) and other antibiotic-resistant staphylococcal strains."

Draft genome sequence of Staphylococcus agnetis 4244, a strain with gene clusters encodin... — PubMed (NCBI E-utilities), 2021

Gram-negative

Low · score 1.89 · 2 sources

"The antimicrobial compounds from test strains were not effective against gram-negative pathogens, including Salmonella enterica serovar Typhimurium, Escherichia coli O157:H7, and Klebsiella pneumonia as well as the indicator mold Aspergillus fumigatus."

Antimicrobial spectrum activity of bacteriocinogenic Staphylococcus strains isolated from... — PubMed (NCBI E-utilities), 2019

"The antimicrobial compounds from test strains were not effective against gram-negative pathogens, including *Salmonella enterica* serovar Typhimurium, *Escherichia coli* O157:H7, and *Klebsiella pneumonia* as well as the indicator mold *Aspergillus fumigatus*." Antimicrobial spectrum activity of bacteriocinogenic *Staphylococcus* strains isolated from... — PubMed (NCBI E-utilities), 2019

6 Biochemical tests for identification

high confidence

• Coagulase

High · score 59.65 · 6 sources

"*Staphylococcus hyicus* and *Staphylococcus agnetis* are two coagulase-variable staphylococcal species that can be isolated from bovine milk and are difficult to differentiate."

Species Identification and Strain Typing of *Staphylococcus agnetis* and *Staphylococcus hyi*... — PubMed (NCBI E-utilities), 2017

• MALDI-TOF MS

High · score 54.85 · 8 sources

"Bacterial identification was conducted by matrix-assisted laser desorption ionization-time of flight (MALDI-TOF) and strain typing by repetitive sequence-based PCR (rep-PCR) and DNA sequencing to determine species similarity and virulence factors."

Role of *Staphylococcus agnetis* and *Staphylococcus hyicus* in the Pathogenesis of Buffalo F... — PubMed (NCBI E-utilities), 2022

• Haemolysis pattern

High · score 41.9 · 6 sources

"The most common species identified from body site samples were *S. chromogenes*, *S. xylosus*, and *Staphylococcus haemolyticus*."

Molecular characterization of non-aureus *Staphylococcus* spp. from heifer intramammary inf... — PubMed (NCBI E-utilities), 2018

• 16S rRNA gene sequencing

High · score 15.1 · 3 sources

"Pathogens from bovine subclinical mastitis (SCM) and clinical mastitis (CLM) were identified by 16S rDNA and the sensitivity to both antibiotics and bacteriocins of *Bacillus thuringiensis* was tested."

Molecular detection and sensitivity to antibiotics and bacteriocins of pathogens isolated... — PubMed (NCBI E-utilities), 2015

• DNase

Low · score 3 · 2 sources

"*Staphylococcus chromogenes*, *S. lentus*, and *S. epidermidis* exhibited the highest DNase and/or gelatinase activity."

Virulence factors and biofilm forming ability of *Staphylococcus* species isolated from sk... — Europe PMC, 2025

• Whole-genome sequencing / ANI

Low · score 3 · 2 sources

"Methods: This study performed whole-genome sequencing and comparative genomic analysis of an ST398-MRSA-Vc isolate (NPREF115) from an RTE pork product in China."

Evolutionary and Mobile Genetic Element Analysis of a Multidrug-Resistant ST398-MRSA-Vc I... — Europe PMC, 2026

• Gelatin hydrolysis

Low · score 2.07 · 1 source

"*Staphylococcus chromogenes*, *S. lentus*, and *S. epidermidis* exhibited the highest DNase and/or gelatinase activity."

Virulence factors and biofilm forming ability of *Staphylococcus* species isolated from sk... — Europe PMC, 2025

• Urease — reported positive

Low · score 2.07 · 1 source

"The 16S rRNA sequence, MALDI-TOF mass spectrometry and positive urea hydrolysis and beta-glucuronidase tests clearly distinguished it from closely related *Staphylococcus* spp. All analyses have consistently shown that the closest relative is *Staphylococcus chromogenes*; however, values of digital DNA-DNA hybridization <35.3% and an average nucleotide identity <81.4% confirmed that the analyzed strain is a distinct *Staphylococcus* species."

Staphylococcus ratti sp. nov. Isolated from a Lab Rat — OpenAlex, 2022

• Beta-glucuronidase (MUG)

Low · score 2.07 · 1 source

"The 16S rRNA sequence, MALDI-TOF mass spectrometry and positive urea hydrolysis and beta-glucuronidase tests clearly distinguished it from closely related *Staphylococcus* spp. All analyses have consistently shown that the closest relative is *Staphylococcus chromogenes*; however, values of digital DNA-DNA hybridization <35.3% and an average nucleotide identity <81.4% confirmed that the analyzed strain is a distinct *Staphylococcus* species."

Staphylococcus ratti sp. nov. Isolated from a Lab Rat — OpenAlex, 2022

• Aerotolerance test — reported positive

Low · score 2.07 · 1 source

"*Staphylococcus aureus* is a gram-positive, facultative anaerobe coccus, which is a member of the commensal microbiota of skin and mucous membranes in humans and animals and sometimes can cause infection or disease."

Lameness caused by *Staphylococcus aureus* in poultry: A review — OpenAlex, 2024

• VITEK 2

Low · score 1.48 · 1 source

"From 180 samples, NAS were isolated using selective media and identified via the VITEK-2 system."

Antimicrobial resistance profiles of non-aureus Staphylococci isolated from farm animals,... — Europe PMC, 2026

• Antibiotic susceptibility profile

Low · score 0.93 · 1 source

"Antimicrobial susceptibility testing revealed a multidrug resistance profile, with resistance to several antimicrobial classes commonly used in poultry production."

Avian Infective Endocarditis Associated with *Vagococcus fluvialis*; A Case Report and Literature Review — Europe PMC, 2026

7 References

1. Avian Infective Endocarditis Associated with *Vagococcus fluvialis*; A Case Report and Literature Review 2026
MED:42072033 doi:10.3390/ani16081267 · via Europe PMC · supported: Biochemical tests for identification, Gram character
2. Antimicrobial resistance profiles of non-aureus Staphylococci isolated from farm animals, farm environments and companion animals. 2026
MED:41540231 doi:10.1038/s41598-026-36455-9 · via Europe PMC · supported: Biochemical tests for identification
3. Evolutionary and Mobile Genetic Element Analysis of a Multidrug-Resistant ST398-MRSA-Vc Isolate from Ready-to-Eat Pork Products. 2026
MED:41892475 doi:10.3390/antibiotics15030314 · via Europe PMC · supported: Biochemical tests for identification
4. Staphylococcus agnetis 2026
wikipedia:45076890 · via Wikipedia · supported: Gram character, Biochemical tests for identification
5. Virulence factors and biofilm forming ability of Staphylococcus species isolated from skeletal lesions of broiler chicken 2025
MED:40155729 doi:10.1038/s41598-025-95006-w · via Europe PMC · supported: Biochemical tests for identification
6. Prevalence of methicillin-resistant coagulase-negative staphylococci in Africa: a systematic review and meta-analysis. 2025
MED:40640717 doi:10.1186/s12879-025-11149-1 · via Europe PMC · supported: Biochemical tests for identification
7. Species Distribution, Antimicrobial Resistance, and Enterotoxin Profiles of Non-aureus Staphylococci Isolated from Poultry Slaughterhouses in Korea 2025
573bbbd03741452fbb07812dd32b6450 · via DOAJ · supported: Biochemical tests for identification
8. Assessment of Microbial and Heavy Metal Contamination of Natural Sheep Casings from Different Geographic Regions 2025
MED:40361603 doi:10.3390/foods14091520 · via Europe PMC · supported: Biochemical tests for identification
9. Genomic Analysis of Bacteriocin-Producing Staphylococci: High Prevalence of Lanthipeptides and the Micrococcin P1 Biosynthetic Gene Clusters. 2025
MED:37632676 doi:10.1007/s12602-023-10119-w · via Europe PMC · supported: Biochemical tests for identification
10. Frequency of non-aureus staphylococci and mammaliococci species isolated from quarter clinical mastitis: A 6-year retrospective study. 2024
PMID:38056569 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
11. Effects of cosmetic ingredients on growth and virulence factor expression in *Staphylococcus aureus*: a comparison between culture medium and *in vitro* skin model medium 2024
doi:10.3934/microbiol.2025002 · via Crossref · supported: Media used
12. Lameness caused by Staphylococcus aureus in poultry: A review 2024
https://openalex.org/W4393286254 · via OpenAlex · supported: Gram character, Biochemical tests for identification
13. Species Profiles and Antimicrobial Resistance of Non-*aureus* Staphylococci Isolated from Healthy Broilers, Farm Environments, and Farm Workers. 2023
MED:37701746 doi:10.5851/kosfa.2023.e36 · via Europe PMC · supported: Biochemical tests for identification
14. Species Profiles and Antimicrobial Resistance of Non- aureus Staphylococci Isolated from Healthy Broilers, Farm Environments, and Farm Workers. 2023
PMID:37701746 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
15. *Staphylococcus aureus* epidemiology, pathophysiology, clinical manifestations and application of nano-therapeutics as a promising approach to combat methicillin resistant *Staphylococcus aureus* 2023
https://openalex.org/W4389002650 · via OpenAlex · supported: Gram character
16. Staphylococcus spp. Causatives of Infections and Carrier of blaZ, femA, and mecA Genes Associated with Resistance 2023
https://openalex.org/W4361267552 · via OpenAlex · supported: Biochemical tests for identification
17. Role of Staphylococcus agnetis and Staphylococcus hyicus in the Pathogenesis of Buffalo Fly Skin Lesions in Cattle 2022
PMC9430782 · via PubMed Central (open access) · supported: Media used, Colony morphology, Gram character, Biochemical tests for identification, Time required to grow
18. Species identification by MALDI-TOF MS and gap PCR-RFLP of non-aureus Staphylococcus, Mammaliococcus, and Streptococcus spp. associated with sheep and goat mastitis 2022
https://openalex.org/W4306291761 · via OpenAlex · supported: Biochemical tests for identification
19. Staphylococcus ratti sp. nov. Isolated from a Lab Rat 2022
https://openalex.org/W4206549958 · via OpenAlex · supported: Biochemical tests for identification
20. Diagnosing Intramammary Infection: Meta-Analysis and Mapping Review on Frequency and Udder Health Relevance of Microorganism Species Isolated from Bovine Milk Samples. 2022
MED:36496808 doi:10.3390/ani12233288 · via Europe PMC · supported: Biochemical tests for identification

21. Inhibition of histamine accumulation by novel histamine-degrading species of *Staphylococcus* sp. isolated from goats and sheep milk 2022
<https://openalex.org/W4206185474> · via OpenAlex · supported: Time required to grow, Biochemical tests for identification
22. Role of *Staphylococcus agnetis* and *Staphylococcus hyicus* in the Pathogenesis of Buffalo Fly Skin Lesions in Cattle. 2022
 PMID:35863026 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
23. The role of *Staphylococcus agnetis* and *Staphylococcus hyicus* in the pathogenesis of buffalo fly skin lesions in cattle 2022
 doi:10.1101/2022.03.11.483979 · via Crossref · supported: Biochemical tests for identification
24. Role of *Staphylococcus agnetis* and *Staphylococcus hyicus* in the Pathogenesis of Buffalo Fly Skin Lesions in Cattle. 2022
 MED:35863026 doi:10.1128/spectrum.00873-22 · via Europe PMC · supported: Biochemical tests for identification
25. Role of *Staphylococcus agnetis* and *Staphylococcus hyicus* in the Pathogenesis of Buffalo Fly Skin Lesions in Cattle 2022
 cfb7c83518164d51b85dec368411854a · via DOAJ · supported: Biochemical tests for identification
26. Draft genome sequence of *Staphylococcus agnetis* 4244, a strain with gene clusters encoding distinct post-translational modified antimicrobial peptides. 2021
 PMID:34700053 · via PubMed (NCBI E-utilities) · supported: Gram character, Media used
27. Draft genome sequence of *Staphylococcus agnetis* 4244, a strain with gene clusters encoding distinct post-translational modified antimicrobial peptides 2021
<https://openalex.org/W3207983804> · via OpenAlex · supported: Gram character, Media used
28. Draft genome sequence of *Staphylococcus agnetis* 4244, a strain with gene clusters encoding distinct post-translational modified antimicrobial peptides 2021
 881a81f0b614579b8a4686e9f37190c · via DOAJ · supported: Gram character, Media used
29. Embryo lethality assay as a tool for assessing virulence of isolates from bacterial chondronecrosis with osteomyelitis in broilers 2021
 PMC8496174 · via PubMed Central (open access) · supported: Media used
30. Non-aureus *Staphylococci* and Bovine Udder Health: Current Understanding and Knowledge Gaps 2021
<https://openalex.org/W3155922183> · via OpenAlex · supported: Gram character
31. De novo transcriptome analysis of halotolerant bacterium *Staphylococcus* sp. strain P-TSB-70 isolated from East coast India: In search of salt stress tolerant genes 2020
<https://openalex.org/W3005545504> · via OpenAlex · supported: Media used
32. *Staphylococcus saccharolyticus*: An Overlooked Human Skin Colonizer 2020
<https://openalex.org/W3045128041> · via OpenAlex · supported: Biochemical tests for identification
33. Antimicrobial spectrum activity of bacteriocinogenic *Staphylococcus* strains isolated from goat and sheep milk. 2019
 PMID:30799112 · via PubMed (NCBI E-utilities) · supported: Gram character, Biochemical tests for identification
34. Test Agreement among Biochemical Methods, Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry, and 16S rRNA Sequencing for Identification of Microorganisms Isolated from Bovine Milk. 2019
 MED:30567749 doi:10.1128/jcm.01381-18 · via Europe PMC · supported: Biochemical tests for identification, Media used
35. Development and Validation of a Reference Data Set for Assigning *Staphylococcus* Species Based on Next-Generation Sequencing of the 16S-23S rRNA Region 2019
<https://openalex.org/W2963274849> · via OpenAlex · supported: Biochemical tests for identification
36. Draft genome sequence of *Staphylococcus agnetis* 3682, the producing strain of the broad-spectrum lantibiotic agneticin 3682. 2019
 PMID:31454564 · via PubMed (NCBI E-utilities) · supported: Media used
37. Non-aureus staphylococci in fecal samples of dairy cows: First report and phenotypic and genotypic characterization. 2019
 PMID:31421888 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
38. *Staphylococcus saccharolyticus* Isolated From Blood Cultures and Prosthetic Joint Infections Exhibits Excessive Genomic Decay 2019
<https://openalex.org/W2921479266> · via OpenAlex · supported: Biochemical tests for identification
39. Non-aureus staphylococci in fecal samples of dairy cows: First report and phenotypic and genotypic characterization 2019
<https://openalex.org/W2968459733> · via OpenAlex · supported: Biochemical tests for identification
40. Cross-sectional study to identify staphylococcal species isolated from teat and inguinal skin of different-aged dairy heifers 2018
 PMID:29397170 · via PubMed (NCBI E-utilities) · supported: Media used, Time required to grow, Biochemical tests for identification
41. Molecular characterization of non-aureus *Staphylococcus* spp. from heifer intramammary infections and body sites. 2018
 PMID:29525303 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
42. Species Identification and Strain Typing of *Staphylococcus agnetis* and *Staphylococcus hyicus* Isolates from Bovine Mastitis by Use of a Novel Multiplex PCR Assay and Pulsed-Field Gel Electrophoresis. 2017
 PMID:28330895 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
43. Species level identification of coagulase negative *Staphylococcus* spp. from buffalo using matrix-assisted laser desorption/ionization-time of flight mass spectrometry and *cydB* real-time quantitative PCR. 2017
 PMID:28532810 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
44. Distribution of non-aureus staphylococci species in udder quarters with low and high somatic cell count, and clinical mastitis. 2017
 PMID:28456402 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
45. Molecular detection and sensitivity to antibiotics and bacteriocins of pathogens isolated from bovine mastitis in family dairy herds of central Mexico. 2015
 PMID:25815326 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
46. Molecular Detection and Sensitivity to Antibiotics and Bacteriocins of Pathogens Isolated from Bovine Mastitis in Family Dairy Herds of Central Mexico 2015
<https://openalex.org/W2056347332> · via OpenAlex · supported: Biochemical tests for identification

47. **Short communication: Prevalence of methicillin resistance in coagulase-negative staphylococci and Staphylococcus aureus isolated from bulk milk on organic and conventional dairy farms in the United States** 2014
<https://openalex.org/W2079380795> · via OpenAlex · supported: Biochemical tests for identification
48. **Bovine-associated CNS species resist phagocytosis differently.** 2013
PMID:24207012 · via PubMed (NCBI E-utilities) · supported: Biochemical tests for identification
49. **Bovine-associated CNS species resist phagocytosis differently** 2013
<https://openalex.org/W1987898785> · via OpenAlex · supported: Biochemical tests for identification
50. **Staphylococcus agnetis sp. nov., a coagulase-variable species from bovine subclinical and mild clinical mastitis.** 2012
PMID:21335502 · via PubMed (NCBI E-utilities) · supported: Gram character, Biochemical tests for identification

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.