

I. БАКТЕРИИ

Aerococcus viridans Williams et al. 1953

NBIMCC 8874

History: LMG 17931. ATCC 11563, CCUG 4311, NCTC 8251, DSM 20340, CIP 54.145, CCM 1914, CECT 978, NCFB 1225, ICPB 4307, HNCMB 86001, IFO 12219; NCIMB 11775, NCIMB(QC) 50012, BCRC 14290, **WDCM 00061**. Strain Williams M1. Air sample

Cultivation: Medium 492, 461, 483/37°C, microaerophilic

Biosafety level: 2

Species identity: Confirmed by API 20 Strep (98.4%)

Application: **Type strain.** Quality control of media and water

Aeromonas allosaccharophila Martinez-Murcia et al. 1992

NBIMCC 8963

History: CCUG 14550. ATCC 35993, CECT 4053, LMG 12670, NCTC 11215, **WDCM 00064**. Strain Neilson 416. Activated sludge, Sweden. Deposited as *Aeromonas sobria*

Cultivation: Medium 14, 461, 483/30°C

Biosafety level: 2

Species identity: Confirmed by Biolog Gen III (84.4%)

Application: Quality control of media

Aeromonas hydrophila subsp. *hydrophila* (Chester 1901) Schubert 1964 emend. Huys et al. 2002

NBIMCC 8962

History: CCUG 14551. ATCC 7966, NCTC 8049, CCM 7232, CECT 839, CIP 76.14, DSM 30187, LMG 2844, NCDC 359-60, NCIMB 9240, JCM 1027, **WDCM 00063**. Strain BPE 143. Tin of milk with a fishy odour. *Aeromonas hydrophila*

Cultivation: Medium 14, 126, 461/30°C

Biosafety level: 2

Species identity: Confirmed by API 50 CHE (99.6%) and Biolog Gen III (subsp. 52.2%)

Application: **Type strain.** Quality control of media and water

Bacillus cereus Frankland and Frankland 1887

NBIMCC 1085

History: BTCC. ATCC 11778, IFO 3836, BUCSAV 424, CCM 869, NCTC 10320, **NBIMCC 8935**, NCIMB 8012, CIP 64.52, DSM 345, CECT 193, HNCMB 100003, LMG 8221, FDA strain PCI213, **WDCM 00001**. (*Bacillus mycoides*)

Cultivation: Medium 14/30°C

Biosafety level: 2

Species identity: Confirmed by API 50 CHB (98.2%) and Biolog (100%)

Application: Quality control of foods, media and water. Testing of antibiotics

Bacillus coagulans – see *Weizmannia coagulans*

***Bacillus licheniformis* (Weigmann 1898) Chester 1901**

NBIMCC 3346

History: NCAIM B.01080. ATCC 14580, DSM 13, CECT 20, CCUG 7422, CIP 52.71, NCIMB 9375, NCTC 10341, CCM 2145, NCDO 1772, BCRC 11702, JCM 1505, IFO 12200, **WDCM 00068**. Strain Gibson 46

Cultivation: Medium 13, 14/37°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHB (99.9%)

Application: **Type strain.** Quality control of media

***Bacillus subtilis* (Ehrenberg 1835) Cohn 1872**

NBIMCC 3562

History: IFO 13722. ATCC 19659, NCIMB 12900, PRD 66

Cultivation: Medium 13, 14/30°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHB (99.9%)

Application: Sporocidal testing. Testing of antimicrobial handwashing formulations. Testing of disinfectants

***Bacillus spizizenii* (Nakamura et al. 1999) Dunlap et al. 2020**

NBIMCC 1709

History: CECT 356. ATCC 6633, NCIMB 8054, NCTC 10400, IFO 3134, IFO 13720, CCM 1999, DSM 347, JCM 2499, CCRC 10447, CIP 52.62, VKM B 720, NCFB 1733, LMG 8197, **WDCM 00003**. *Bacillus subtilis* subsp. *Spizizenii*. (*Bacillus subtilis*)

Cultivation: Medium 13, 14/30°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHB (99.3%) and Biolog Gen III (95.7% subsp. *spizizenii*)

Application: Quality control of foods, media and water. Assay of antibiotics and disinfectants. European Pharmacopoeia. Production of subtilin. Screening of phenyl-ketonuria. Production of restriction endonuclease Bsu 6633

***Bifidobacterium breve* Reuter 1963**

NBIMCC 9012

History: JCM 1192. ATCC 15700, CCUG 30511, CECT 4839, CIP 64.69, DSM 20213, LMG 11042, NCTC 11815, BCRC 11846, NCFB 2257, KCTC 3220, **WDCM 00224**. Strain Reuter S1 (Variant a). Intestine of infant

Cultivation: Medium 519, 520/37°C, anaerobic; rehydration fluid 13

Biosafety level: 1

Species identity: Checked by Rapid ID 32 A and API 50 CHL

Application: **Type strain.** Quality control of milk products

***Bifidobacterium longum subsp. longum* (Reuter 1963) Mattarelli et al. 2008**

NBIMCC 8821

History: DSM 20219, ATCC 15707, NCTC 11818, CIP 64.62, CECT 4503, JCM 1217, LMG 10497, NCDO 2259, **WDCM 00225**. Strain E194b (Variant a). Intestine of adult. *Bifidobacterium longum*

Cultivation: Medium 517, 530/37°C, anaerobic

Biosafety level: 1

Species identity: Checked by Rapid ID 32 A and API 50 CHL

Application: **Type strain.** Quality control of milk products

***Bordetella bronchiseptica* (Ferry 1912) Moreno-Lopez 1952**

NBIMCC 1051

History: BTCC, NCTC 8344, NRRL B-140, ATCC 4617, PCI 1701, CIP 53.157, NCIMB 9935, LMG 1808, CCTM 166, DSM 10303, CCUG 2514, NRRL B-140, WHO 11

Cultivation: Medium 14, 126/37°C

Biosafety level: 2

Species identity: Confirmed by API 20 NE (99.3%)

Application: Assay of antibiotics

***Brevundimonas diminuta* (Leifson and Hugh 1954) Segers et al. 1994**

NBIMCC 1418

History: ATCC 19146, DSM 1635, LMG 10743, NCIMB 11091, CIP 103020, CCUG 24715, FDA strain PCI 818. (*Pseudomonas diminuta*)

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by API 20 NE (88.5%) and Biolog (99%)

Application: Control strain for testing membrane filters

***Brochothrix thermosphacta* (McLean and Sulzbacher 1953) Sneath and Jones 1976**

NBIMCC 8039

History: CECT 847, ATCC 11509, DSM 20171, CIP 103251, CCRC 12300, IFO 12167, NCFB 1676, NCIMB 10018, NCTC 10822, Schulzbacher SW-26, **WDCM 00071**. Fresh pork sausage. (*Microbacterium thermosphactum*)

Cultivation: Medium 44, 492/26°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.6%)

Application: **Type strain.** Quality control of media. Phage host. Production of restriction endonuclease Mth I

***Burkholderia cepacia* (Palleroni and Holmes 1981) Yabuuchi et al. 1993**

NBIMCC 8566

History: CFBP 2227. LMG 1222, NCPPB 2993, ATCC 25416, DSM 7288, CCUG 12691, CCUG 13226, CIP 80.24, IFO 14074, JCM 5964, NCTC 10743, CNCTC Ps 156/77, NRRL B-14810, ICMP 5796. *Allium cepa*. (*Pseudomonas cepacia*)

Cultivation: Medium 14/30°C

Biosafety level: 2

Species identity: Confirmed by API 20 NE (99.9%)

Application: **Type strain.** Assay of antimicrobial preservatives. Quality control of media. Production of cepabactin

***Campylobacter coli* (Doyle 1948) Veron and Chatelain 1973**

NBIMCC 8750

History: CECT 7571. ATCC 43478, LMG 21266, CCM 7227, **WDCM 00004**. Strain Penner 76-GA2. Marmoset faeces. Serotype O:28.

Cultivation: Medium 126, 492, 521, 527/37°C, microaerophilic; rehydration fluid 492

Biosafety level: 2

Species identity: Confirmed by API Campy (99.9%)

Application: Quality control of foods, media and water. Enteric research

***Campylobacter jejuni* subsp. *jejuni* (Jones et al. 1931) Veron and Chatelain 1973**

NBIMCC 8652

History: CCM 6214. ATCC 33560, CCTM La 3331, CCUG 11284, CIP 70.2, DSM 4688, LMG 6444, NCTC 11351. Strain Florent 91. Bovine faeces. Penner serovar 23

Cultivation: Medium 126, 492, 518+5% defibrinated sheep blood, 521, 527/37°C, microaerophilic

Biosafety level: 2

Species identity: Confirmed by API Campy (99.1%)

Application: **Type strain.** Quality control strain. Susceptibility testing. Enteric research

NBIMCC 8753

History: CCUG 33057. ATCC 33291, LMG 18455, CECT 7572, **WDCM 00005**. Strain AS-83-79. Human faeces, Colorado, USA

Cultivation: Medium 126, 492, 521, 527/37°C, microaerophilic; rehydration fluid 492

Biosafety level: 2

Species identity: Confirmed by API Campy (99.9%)

Application: Quality control of foods, media and water. Enteric research

NBIMCC 8886

History: CCUG 39973. ATCC 29428, CIP 103778, NCTC 11322, CCM 7212, BCRC 17705, CECT 8119, JCM 2013, **WDCM 00156**. Strain VPI H840. Human diarrheic stool, child, Belgium

Cultivation: Medium 126, 483, 492, 521/37°C, microaerophilic; rehydration fluid 492

Biosafety level: 2

Species identity: Confirmed by API Campy (98.9%)

Application: Quality control of foods, media and water. Enteric research

***Campylobacter upsaliensis* Sandstedt and Ursing 1991**

NBIMCC 8885

History: CCUG 24803. ATCC 43953, CECT 8344, LMG 8852, NCTC 11540, SVA C303, **WDCM 00074**. Strain C 303. Canine faeces, Uppsala, Sweden

Cultivation: Medium 126, 483, 521, 527/ 37°C, microaerophilic; rehydration fluid 492

Biosafety level: 2

Species identity: Confirmed by API Campy (93.2%)

Application: Quality control of media. Enteric research

***Citrobacter freundii* (Braak 1928) Werkman and Gillen 1932**

NBIMCC 3731

History: CECT 401. ATCC 8090, ATCC 13316, CIP 57.32, CCRC 12291, CCRC 10637, CCTM La 3575, CCUG 418, DSM 30039, IFO 12681, LMG 3246, LMG 3247, NCIP 11490, NCTC 9750

Cultivation: Medium 14/32°C

Biosafety level: 2

Species identity: Confirmed by Vitek 2 (95%)

Application: **Type strain.** Quality control. Production of restriction endonuclease CfrAl. Biotransformation of cometabolism of alpha- and gamma-HCH

NBIMCC 8748

History: CECT 7464. ATCC 43864, CCM 7187, CCUG 53829, CIP 103547, LMG 21265, **WDCM 00006**. Strain LRA 117.03.76. Human clinical isolate, France, Montpellier

Cultivation: Medium 13, 14, 129/37°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.9%)

Application: Quality control of foods, media and water. Quality control of API products

Clostridium bifermentans* – see *Paraclostridium bifermentans

***Clostridium perfringens* (Veillon and Zuber 1898) Hauduroy et al. 1937**

NBIMCC 8615

History: CCM 4435. ATCC 13124, CIP 103409, DSM 756, NCIMB 6125, NCTC 8237, LMG 11264, CCUG 1795, JCM 1290, CNCTC CI 68/83, NCAIM B.01417, CECT 376, CCRC 10913, **WDCM 00007**. Strain S 107. Bovine. (*Clostridium welchii*). Type A, alpha-toxigenic. Produces lethal toxins. Does not contain Epsilon toxin gene. Produces phospholipase C and lecithinase C

Cultivation: Medium 126, 517/37°C, anaerobic

Biosafety level: 2

Species identity: Confirmed by API 20 A (99.9%) and ID 32 A (99.9%)

Application: **Type strain.** Quality control of foods, media and water. Produces hemolysins. Quality control of API, BBL and MicroScan products

NBIMCC 8883

History: CCUG 35750. ATCC 10543, CIP 104612, DSMZ 798, CECT 4647, BCRC 10648, NCIMB 8875, **WDCM 00174**. Strain BP6K (L.S. McClung). Produces lethal toxin. Does not contain Epsilon toxin gene

Cultivation: Medium 126, 517, 520/37°C, anaerobic

Biosafety level: 2

Species identity: Confirmed by Rapid ID 32 A (99.9%)

Application: Quality control of media and water. Assay of amino acids

NBIMCC 8945

History: CECT 7468. ATCC 12916, CCM 7176, CIP 110283, NCTC 8238, NCIMB 13079, NRRL B-23850, KCTC 5101, **WDCM 00080**. Boiled salt beef, UK. Strain 281/50 (B. Hobbs). Agglutinating type 2, Type A. (*Clostridium welchii*). Resistant to heat. Does not contain Epsilon toxin gene. Variation in colonial morphology has been detected

Cultivation: Medium 126, 483, 517, 520/37°C, anaerobic

Biosafety level: 2

Species identity: Confirmed by Rapid ID 32 A (99.9%)

Application: Quality control of foods, media and water. Does not produce haemolysins. Enteric Research

***Clostridium sporogenes* (Metchnikoff 1908) Bergey et al. 1923**

NBIMCC 8783

History: LMG 10143. ATCC 19404, DSM 1664, CIP 79.03, CECT 485, CCM 4409, BCRC 11258, CCUG 7489, NCIMB 532, NCTC 532, CNCTC CI 66/79, **WDCM 00008**. Strain Robertson SR5. Gas gangrene

Cultivation: Medium 126, 517/37°C, anaerobic

Biosafety level: 2

Species identity: Confirmed by API 20 A (99.9%)

Application: Quality control of media. Sterility testing. European Pharmacopoeia

NBIMCC 8784

History: LMG 10264. ATCC 11437, DSM 1446, CIP 100651, NBRC 14293, JCM 11010, BCRC 13856, CECT 797, CCUG 31316, NCAIM B.01416, NCIMB 12343, McClung 2006. Cotton. Heat-resistant strain

Cultivation: Medium 126, 517/37°C, anaerobic

Biosafety level: 2

Species identity: Confirmed by API 20 A (96.5%)

Application: Quality control of media. Sterility testing

***Clostridium thermosaccharolyticum* McClung 1935**

NBIMCC 8957

History: DSM 571. ATCC 7956, NCIMB 9385, CECT 5852, LMG 2811, NCA 3814, **WDCM 00135**. Strain McClung 2032. *Thermoanaerobacterium thermosaccharolyticum*

Cultivation: Medium 521, 535/55°C, anaerobic; rehydration fluid 535, 536

Biosafety level: 1

Species identity: Confirmed by MALDI-TOF (99.9%)

Application: **Type strain.** Quality control of media

***Cronobacter sakazakii* (Farmer et al. 1980) Iversen et al. 2008**

NBIMCC 8667

History: CNCTC 5739. ATCC 29544, CCUG 14558, CECT 858, LMG 5740, NCTC 11467, JCM 1233, BCRC 13988, CIP 103183, DSM 4485, KCTC 2949, NBRC 102416, **WDCM 00214**, CDC 4562-70 Ct2(MR-), CDC 78-067947, Sakazaki 216. Child's throat. *Enterobacter sakazakii*

Cultivation: Medium 14/30°C

Biosafety level: 2

Species identity: Confirmed by Vitek 2 (99%)

Application: **Type strain.** Quality control of foods. Reference strain for DNA hybridization

***Enterobacter cloacae* (Jordan 1890) Hormaeche and Edwards 1960**

NBIMCC 8570

History: ICMP 7613a. ATCC 13047, NBRC 13535, CCUG 28448, CNCTC Ae 24/83, VTT E-84198, NCIMB 10101, PCM 533, NCTC 10005, DSM 30054, CIP 60.85, BCRC 10401, CECT 194, KCTC 2361, LMG 2783, JCM 1232, CDC 442-68, **WDCM 00083**. Spinal fluid. Two stable colony types giving identical gelelectrophoretic protein profiles (SDS-PAGE)

Cultivation: Medium 14/30°C

Biosafety level: 2

Species identity: Confirmed by Vitek 2 (93%)

Application: **Type strain.** Quality control strain for API, BBL and Sensititre products

***Enterococcus faecalis* (Andrewes and Horder 1906) Schleifer and Kilpper-Balz 1984**
NBIMCC 3360

History: NCAIM B. 01312. ATCC 19433, HNCMB 80171, NCTC 775, LMG 7937, CCUG 19916, CECT 481, DSM 20478, **WDCM 00009**. *Streptococcus faecalis*

Cultivation: Medium 14, 44, 482/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (94%), API 20 Strep (97%) and Biolog Gen III (99.4%)

Application: **Type strain.** Quality control of foods, media and water. Lancefield's group D Reference strain. Control of antibiotic discs

NBIMCC 3915

History: CCUG 9997. ATCC 29212, CCM 4224, CCTM La 2390, CCRC 10789, CECT 795, CIP 103214, CNCTC str 17/88, DSM 2570, JCM 7783, LMG 8146, LMG 8222, NCIMB 13280, **WDCM 00087**. Strain Portland. Urine

Cultivation: Medium 14, 483, 492/37°C

Biosafety level: 2

Species identity: Confirmed by API 20 Strep (99.1%) and VITEK 2 (99%)

Application: Quality control of foods, media and water. Reference strain for aerobic antimicrobial susceptibility testing. Quality control of API and bioMerieux Vitek products. Quality control for MIC determinations. Assay of antibiotics

NBIMCC 8342

History: CCUG 34289. ATCC 51299, DSM 12956, LMG 16216, CCM 4647, CIP 104676, CNCTC 5530, **WDCM 00085**. Human peritoneal fluid. St. Louis, MO, USA.

Cultivation: Medium 126, 461, 492, 521/37°C

Biosafety level: 2

Species identity: Confirmed by RapID STR (99.9%)

Application: Quality control strain for antimicrobial susceptibility testing

NBIMCC 8875

History: CCM 2541. CIP 106877, DSM 24916, CECT 8118, **WDCM 00176**. Bergan strain H. (*Streptococcus faecalis* subsp. *zymogenes*). Urinary tract infection, Norway

Cultivation: Medium 461, 492, 521/37°C

Biosafety level: 2

Species identity: Confirmed by Biolog Gen III (90.3%)

Application: Quality control of media and water. Test strain for medium productivity

NBIMCC 8876*Enterococcus faecalis*

- History:** CCM 3956. ATCC 33186, CIP 100750, CECT 9151, CNCTC 5008, NCTC 13763, **WDCM 00210**. Strain CN 478. *Streptococcus faecalis*
- Cultivation:** Medium 14, 126, 492/37°C
- Biosafety level:** 2
- Species identity:** Confirmed by Biolog Gen III (96.2%)
- Application:** Quality control of media. Reference strain for aerobic antimicrobial susceptibility testing. Assay of sulfamethoxazole, trimethoprim

Enterococcus faecium* (Orla-Jensen 1919) Schleifer and Kilpper-Balz 1984*NBIMCC 3587**

- History:** LMG 11397. DSM 2918, NCIMB 12672, CECT 4102, CCUG 32985, Kulmbach 2, **WDCM 00088**. Strain DVG 8582. Uncooked sausage
- Cultivation:** Medium 14, 182/37°C
- Biosafety level:** 2
- Species identity:** Confirmed by Biolog (92%)
- Application:** Testing of disinfectants

NBIMCC 8754

- History:** CCUG 542. ATCC 19434, CIP 103014, DSM 20477, JCM 5804, LMG 8149, LMG 11423, NCFB 942, NCIMB 11508, NCTC 7171, **WDCM 00010**. Grumbach A., Zürich, 1946. *Streptococcus faecium*. Serotype 11
- Cultivation:** Medium 492/37°C
- Biosafety level:** 2
- Species identity:** Confirmed by RapID STR (99.9%)
- Application:** **Type strain.** Quality control of media and water. Testing antimicrobial handwashing formulations

NBIMCC 8873

- History:** LMG 15709. ATCC 6057, DSM 2146, CCM 2308, NCIMB 8842, CIP 106742, CECT 8108; CGMCC 1.2025, KCTC 3077, **WDCM 00177**. Strain Sherman 24. *Streptococcus faecium*. Cheese
- Cultivation:** Medium 483, 492, 493, 521/37°C, preferably microaerophilic
- Biosafety level:** 2
- Species identity:** Confirmed by API 20 Strep (98.1%)
- Application:** Quality control of media and water. Testing of disinfectants. Control of thermal disinfection. Assay of lysine. Oxidation of glycerol

Enterococcus hirae* Farrow and Collins 1985 VP*NBIMCC 8326**

- History:** CECT 4081. ATCC 10541, CCRC 11547, CCTM La 231, CCUG 32258, CECT 214, DSM 3320, LMG 10274, NCIB 8192, CIP 58.55, **WDCM 00011**. Lancefield's group D. (*Enterococcus faecium*)
- Cultivation:** Medium 182, 461, 492, 521/37°C, microaerophilic
- Biosafety level:** 2
- Species identity:** Confirmed by Biolog (97%)
- Application:** Testing of disinfectants. Assay of tyrothricin, gramicidin and thiostrepon

NBIMCC 8851

History: CCUG 18659, ATCC 8043, ATCC 9790, DSM 20160, CIP 53.48, LMG 6399, CCM 2423, NCDO 1258, JCM 8729, BUCSAV 308, NCIB 6459, **WDCM 00089**. Serological group D (*Streptococcus lactis*, *Streptococcus faecalis*)

Cultivation: Medium 461, 483, 492, 521/37°C, microaerophilic

Biosafety level: 2

Species identity: Confirmed by Biolog GEN III (96.7%)

Application: **Type strain.** Quality control of media, food, water and disinfectants. Assay of amino acids, folic acid, monensin

***Escherichia coli* (Migula 1895) Castellani and Chalmers 1919**

NBIMCC 3397

History: NCFB 904, ATCC 8739, DSM 1576, CCUG 10979, CIP 53.126, CECT 516, LMG 8063, NCIMB 8545, **WDCM 00012**. Faeces

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%), API 20 E (99.9%), ENTEROtest 24 (100%) and COLItest

Application: Quality control of foods, media and water. European Pharmacopoeia. Testing of preservatives in parenteral and ophthalmic preparations. Reduction of dehydroascorbic acid

NBIMCC 3398

History: NCFB 1989, NCTC 9001, ATCC 11775, DSM 30083, CCM 5172, CIP 54.8, **WDCM 00090**. Urine. Pathogenic to chickens

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%), ENTEROtest 24 (99.7%) and COLItest

Application: **Type strain.** Quality control of foods, media and water

NBIMCC 3548

History: ATCC 10536, CIP 54.127, DSM 682, IMET 10907, LMG 10266, NCIMB 8879, NCTC 10418, WHO 5. Strain Mac Leod

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%), ENTEROtest 24 (99.9%) and COLItest

Application: Assay of chloramphenicol, chlortetracycline, neomycin, oxytetracycline, polymixin, rifamycin, spectinomycin, tetracycline hydrochloride. Assay of antimicrobial preservatives

NBIMCC 3588

History: LMG 9007. ATCC 11229, CECT 4056, CCRC 11549, CCUG 17931, DSM 787, NCIMB 9517

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%) and ENTEROtest 24 (94.6%)

Application: Determination of antibacterial activity of enzyme preparation used as food additives. Testing of: disinfectants, bacterial resistance of latex paint, sanitizers, antimicrobial handwashing formulations, membrane filters with absorbent pads and membrane filters with ink grids

NBIMCC 3702

History: LMG 8223. ATCC 25922, CECT 434, CIP 76.24, CCUG 21456, CCUG 17620, DSM 1103, IFO 15034, JCM 5491, NCIB 12210, PCM 2057, **WDCM 00013**. Strain Seattle 1946. Clinical isolate. Two stable colony types. Serotype O6, Biotype 1

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (98%), Biolog GEN III (99%), API 20 E (99.9%), ENTEROtest 24 (100%) and COLItest

Application: Quality control of foods, media and water. Strong producer of β -d-glucuronidase Control strain for: susceptibility testing of bacteria to antibiotics, Abbott, API, Autobac, BBL, bioMerieux Vitek, Biosynth, Difco, IDS, Micro-Media, MicroScan, Roche Diagnostics, and Sensititre products

NBIMCC 8785

History: LMG 21756. ATCC 700728, CECT 4972, JCM 18426, NCTC 12900, CCM 4787, **WDCM 00014**

Serotype O157:H7 (non toxigenic)

Cultivation: Medium 14, 129/37°C

Biosafety level: 1

Species identity: Confirmed by API 20 E (98%) and medium Chromatic *E.coli* O157

Application: Quality control of foods, media and water. Quality control strain for BBL chromagar. A safe test strain for analysis of O157:H7 verotoxin (or shiga toxin) since the virulence factor has been deleted

NBIMCC 8877

History: CCM 7395. NCTC 13216, CIP 110905, CCUG 54767, CECT 9153, **WDCM 00202**. Strain N170. Food sample

Cultivation: Medium 14, 461/30°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (96.8%)

Application: Quality control of foods and media. Weak beta-glucuronidase producer

NBIMCC 8946

History: CECT 8296, CIP 106878, DSM 19683, NCTC 13167, CCM 7801, **WDCM 00179**. Strain WR1. Sewage, Netherlands
Cultivation: Medium 129, 201, 461/30°C
Biosafety level: 2
Species identity: Confirmed by API 50 CHE (92.1%)
Application: Quality control of media and drinking water. Test strain for medium fertility

NBIMCC 8905

History: CCM 4225, ATCC 35218, CCUG 30600, DSM 5923, LMG 15862, CNCTC 5321, CECT 943, CIP 102181, NCTC 11954. Strain Barr 1532. Canine, Tennessee, USA
Cultivation: Medium 14, 461/37°C
Biosafety level: 2
Species identity: Confirmed by API 20 E (99.5%)
Application: Quality control of disks containing combinations of beta-lactams and beta-lactamase inhibitors. Quality control strain for API, bioMerieux Vitek and Sensititre products. Bioinformatics

***Geobacillus stearothermophilus* (Donk 1920) Nazina et al. 2001 emend. Coorevits et al. 2012**

NBIMCC 2311

History: HNCMB 101023, ATCC 7953, NCIMB 8157, NCTC 10007, DSM 5934, CCRC 10285, IFO 13737. *Bacillus stearothermophilus*
Cultivation: Medium 14, 129/55°C
Biosafety level: 1
Species identity: Confirmed by API 50 CHB (99.9%)
Application: Sterilization control

NBIMCC 8972

History: CCM 5965, ATCC 10149, CCUG 34144, CECT 4517, CIP 67.5, CIP 105453, DSM 1550, DSM 6790, LMG 11163, LMG 17962, NCTC 13791, JCM 11297, JCM 12216, JCM 14450, BCRC 10610, NBRC 100862, NCDO 1780, NCIMB 11780, CGMCC 1.3381, CNCTC Bac 10/82, CNCTC Bac 12/83, CCTM La 2870, **NBIMCC 2330, WDCM 00069**. *Bacillus stearothermophilus* (*Bacillus stearothermophilus* var. *calidolactis*). Strain H.U. Wiesner C953, Smith T15. Evaporated milk
Cultivation: Medium 13, 38/55°C
Biosafety level: 1
Species identity: Confirmed by API 50 CHB (99.9%)
Application: Quality control of media. Assay of penicillin and inhibitory substances in milk. Assay of beta-lactam antibiotics. Sterility testing

***Hafnia alvei* Moller 1954**

NBIMCC 1229

History: NCTC 8105. ATCC 13337, CIP 57.31, DSM 30163, LMG 10392, CCUG 15720, CECT 158, NCIMB 11999, NCDC 434-68, CGMCC 1.2026, JCM 1666, NCIMB(QC) 50037, **WDCM 00095**

Cultivation: Medium 13, 14/30°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.9%) and API 50 CHE (99.9%)

Application: **Type strain.** Quality control of media. Production of arginine dihydrolase and urease.

***Klebsiella aerogenes* (Hormaeche and Edwards 1960) Tindall et al. 2017**

NBIMCC 3699

History: NCAIM B.01467. ATCC 13048, CDC 819-56, CCTM 2835, CCUG 1429, CIP 60.86, DSM 30053, IAM 12348, IFO 13534, LMG 2094, JCM 1235, NCIMB 10102, NCTC 10006, **WDCM 00175**. Sputum. *Enterobacter aerogenes*. (*Aerobacter aerogenes*)

Cultivation: Medium 14/32°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.7%) and Vitek 2 (99%)

Application: **Type strain.** Quality control of media and water. Assay of antimicrobial preservatives (ANSI/ASTM E640-78) and slimicides (ASTM E600-85). Control strain for bioMerieux Vitek products. Testing bacterial resistance of paint. Testing in pharmaceuticals and cosmetics of preservatives. Cometabolism of gamma-HCH

***Klebsiella pneumoniae* subsp. *pneumoniae* (Schroeter 1886) Trevisan 1887**

NBIMCC 3670

History: CIP 82.91. ATCC 13883, LMG 2095, JCM 1662, NCTC 9633, CCUG 225, CECT 143, DSM 30104, **WDCM 00097**. Strain 298/53

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%) and ENTEROtest 24 (99%)

Application: **Type strain.** Quality control of foods and media. Assay of antimicrobial preservatives. Quality control strain for Abbott, API and bioMerieux Vitek, IDS and Sensititre products

***Kocuria rhizophila* Kovacs et al. 1999 VP**

NBIMCC 159

History: BTCC. ATCC 9341, NBRC 12708, DSM 348, CECT 241, CCM 552, CIP 53.45, NCFB 758, NCIMB 8553, NCTC 8340, CCUG 10782, CNCTC 5039, FDA strain PCI 1001. Soil. (*Sarcina lutea*, *Micrococcus luteus*)

Cultivation: Medium 13/30°C

Biosafety level: 1

Species identity: Confirmed by Biolog Gen III (53%) and laboratory tests

Application: Assay of antibiotics. Test strain for inactivation of microbiocidal compounds. Sterility testing. Production of L-sorbose

***Lacticaseibacillus casei* (Orla-Jensen 1916) Zheng et al. 2020**

NBIMCC 3485

History: JCM 1134, ATCC 393, CECT 475, CIP 103137 T, DSM 20011, LMG 6904, CCM 7088, CCUG 21451, NCTC 13641, NCFB 161, BCRC 10697, NRRL B-1922, NCIMB 11970, IFO 15883, **WDCM 00100**. Strain 03, 7, Orland L-323, R.P. Tittsler 303. Cheese. *Lactobacillus casei*. (*Lactobacillus casei* subsp. *casei*, *Streptobacterium casei*)

Cultivation: Medium 182, 305/30°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.4%) and Biolog Gen III (96.8%)

Application: **Type strain.** Quality control of media. Production of α-acetolactate, diacetyl and acetoin

***Lacticaseibacillus rhamnosus* (Hansen 1968) Zheng et al. 2020**

NBIMCC 1010

History: BTCC. NCAIM B. 01147, CCM 1825, ATCC 7469, NCIMB 8010, NCTC 6375, DSM 20021, CCUG 21452, CECT 278, CIP A157, CNCTC 3, IFO 3452, JCM 1136, BUCSAV 227, M. Rogosa V300, M. E. Sharpe H2, **WDCM 00101**. *Lactobacillus rhamnosus* (*Lactobacillus casei* subsp. *rhamnosus*)

Cultivation: Medium 182/37°C

Biosafety level: 2

Species identity: Confirmed by API 50 CHL (99.8%)

Application: **Type strain.** Quality control of media. Assay of biotin, glucose, folic acid, riboflavin, pantothenic, nicotinic, glutamic acids, pyridoxal, arginine

***Lactiplantibacillus plantarum* (Orla-Jensen 1919) Zheng et al. 2020**

NBIMCC 3447

History: CIP 103.151, ATCC 14917, DSM 20174, JCM 1149, NCIMB 11974, IFO 15891, CECT 748, LMG 6907, CCM 7039, **WDCM 00104**. Strain Lp 39. Picklet cabbage. *Lactobacillus plantarum*. (*Streptobacterium plantarum*)

Cultivation: Medium 182, 493/37°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.8%)

Application: **Type strain.** Quality control of media

***Lactobacillus acidophilus* (Moro 1900) Hansen and Mocquot 1970**

NBIMCC 8896

History: CNCTC 7423, ATCC 4356, DSM 20079, CIP 76.13, NCTC 12980, CCM 4833, CCUG 5917, LMG 9433, CECT 903, NCFB 1748, NCIMB 8690, IFO 13951, JCM 1132, **WDCM 00098**. Strain L917, Scav. Human

Cultivation: Medium 182, 305, 530/37°C, anaerobic

Biosafety level: 1

Species identity: Confirmed by c Rapid ID 32 A (93,1%) и 50 CHL

Application: **Type strain.** Quality control of media. Agglutinating antigens. Active for "acidophilus milk" when used with yeast extract

Lactobacillus brevis – see *Levilactobacillus brevis*

Lactobacillus casei – see *Lacticaseibacillus casei*

***Lactobacillus delbrueckii* subsp. *bulgaricus* (Orla-Jensen 1919) Weiss et al. 1984**

NBIMCC 1132

History: BTCC. NCFB 1489, ATCC 11842, IFO 13953, DSM 20081, IAM 12472, CCRC 10696, LMG 6901, CECT 4005, IMET 10708, JCM 1002, NCIMB 11778, Orla-Jensen 14, **WDCM 00102**. Strain Lb14. Bulgarian yoghurt. (*Lactobacillus bulgaricus*). Two stable colony types giving identical protein profiles in SDS-PAGE

Cultivation: Medium 182, 305, 493, 530/37°C, microaerophilic - anaerobic

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.7%)

Application: **Type strain.** Quality control of media. DNA hybridization

***Lactobacillus gasserii* Lauer and Kandler 1980**

NBIMCC 2450

History: CNRZ 222. ATCC 19992, CIRM-BIA 1437, DSM 20077, CIP 103699, CCUG 39972, LMG 13047, NCTC 13643, NCIMB 13081, CECT 8109, JCM 1130, VPI 6033, **WDCM 00103**. Strain Reuter F 164. Human faeces, Germany. (*Lactobacillus acidophilus*). Homology group B-1

Cultivation: Medium 182, 493, 530/37°C

Biosafety level: 1

Species identity: Confirmed by Biolog Gen III (77.9%) and API 50 CHL

Application: Quality control of media

Lactobacillus plantarum – see *Lactiplantibacillus plantarum*

Lactobacillus sakei subsp. *sakei* – see *Latilactobacillus sakei* subsp. *sakei*

***Lactococcus lactis* subsp. *lactis* (Lister 1873) Schleifer et al. 1986**

NBIMCC 4000

History: JCM 5805. ATCC 19435, CCM 1877, CCUG 7980, CECT 185, DSM 20481, NCIMB 6681, NCTC 6681, NCFB 604, CIP 70.56, LMG 6890, HNCMB 80146, **WDCM 00016**. (*Streptococcus lactis*)

Cultivation: Medium 182/30°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (96%)

Application: **Type strain.** Quality control of foods, water and media. Production of L(+)lactic acid

***Latilactobacillus sakei* subsp. *sakei* (Katagiri et al. 1934) Zheng et al. 2020**

NBIMCC 3453

History: CECT 906, ATCC 15521, JCM 1157, DSM 20017, NCIMB 13090, CIP 103139, IFO 15893, LMG 9468, CCRC 14622, **WDCM 00015**. Kitahara strain T.S. *Lactobacillus sakei* subsp. *sakei*

Cultivation: Medium 182, 493/30°C

Biosafety level: 1

Species identity: Checked by API 50 CHL

Application: **Type strain.** Starter of sake. Quality control of foods and media. Production of lactic acid racemase

***Legionella anisa* Gorman et al. 1985**

NBIMCC 8852

History: CCUG 29665, ATCC 35292, NCTC 11974, DSM 17627, CIP 103870, CECT 8177, JCM 7573, BCRC 17043, **WDCM 00106**. Strain WA-316-C3. Tap water, USA

Cultivation: Medium 533/37°C, microaerophilic; rehydration fluid 13, 461, 492

Biosafety level: 2

Species identity: Confirmed by Microgen Legionella Rapid Test to genus level

Application: **Type strain.** Quality control of water and media

***Legionella pneumophila* subsp. *fraseri* Brenner et al. 1989**

NBIMCC 8887

History: CCUG 13398, ATCC 33156, CIP 103858, DSM 7514, CECT 8343, NCTC 11233, **WDCM 00180**. Strain Los Angeles 1. Human lung, USA. Serovar 4

Cultivation: Medium 533/37°C, microaerophilic; rehydration fluid 13, 461, 492

Biosafety level: 2

Species identity: Confirmed by Microgen Legionella Rapid Test to group of serovars

Application: **Type strain.** Quality control of water and media. Emerging infectious disease and respiratory research

***Legionella pneumophila* subsp. *pneumophila* Brenner et al. 1979**

NBIMCC 8848

History: CCUG 9568, ATCC 33152, DSM 7513, CIP 103854, NCTC 11192, CECT 1709, CCM 7799, JCM 7571, **WDCM 00107**. Strain Philadelphia 1. Human lung, USA. Serovar 1

Cultivation: Medium 533/37°C, microaerophilic; rehydration fluid 13, 461, 492

Biosafety level: 2

Species identity: Confirmed by Microgen Legionella Rapid Test

Application: **Type strain.** Quality control of water and media. Emerging infectious disease and respiratory research

***Leuconostoc suionicum* (Gu et al. 2012) Jeon et al. 2017**

NBIMCC 8971

History: CCM 1851, ATCC 9135, DSM 20241, CCUG 1521, CIP 110051, CECT 8146, LMG 8159, BUCSAV 312, NCDO 522, NRRL B-523, NCIMB 6992, IFO 3426, JCM 30910, BCRC 14012, WDCM 00108. Strain McCleskey's type B, W. Gingrich 535. Sweden. *Leuconostoc mesenteroides* subsp. *suionicum*. (*Leuconostoc mesenteroides* subsp. *mesenteroides*). Requires calcium pantothenate, nicotinic acid, and thiamine

Cultivation: Medium 182, 493/28°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.5%)

Application: **Type strain.** Quality control of media. Production of dextran class C. Produces acid from mannitol and lactose

***Levilactobacillus brevis* (Orla-Jensen 1919) Zheng et al. 2020**

NBIMCC 3448

History: CCUG 30670, ATCC 14869, DSM 20054, NCIMB 11973, CIP 102806, JCM 1059, LMG 7944, **WDCM 00099**. Human feces. *Lactobacillus brevis*. (*Betabacterium breve*). Two stable colony types showing minor differences in SDS-PAGE

Cultivation: Medium 182, 493/30°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (96.6%)

Application: **Type strain.** Quality control of media

***Listeria innocua* (ex Seeliger and Schoofs 1979) Seeliger 1983**

NBIMCC 8755

History: CCUG 15531, ATCC 33090, CCM 4030, CCRC 14843, CIP 80.11, DSM 20649, LMG 11387, NCTC 11288, CECT 910, **WDCM 00017**. Bovine brain, Germany. Serotype 6a

Cultivation: Medium 492/37°C

Biosafety level: 1

Species identity: Confirmed by API Listeria (99.6%)

Application: **Type strain.** Quality control of foods and media

***Listeria ivanovii* subsp. *ivanovii* Seeliger et al. 1984**

NBIMCC 8756

History: CCUG 15528, ATCC 19119, CIP 78.42, CCM 5884, DSM 20750, JCM 7681, LMG 11388, CECT 913, NCTC 11846, **WDCM 00018**. Sheep, Bulgaria

Serotype 5

Cultivation: Medium 126, 492/37°C

Biosafety level: 2

Species identity: Confirmed by API Listeria (99.9%)

Application: **Type strain.** Quality control of foods and media

***Listeria monocytogenes* (Murray et al. 1926) Pirie 1940**

NBIMCC 8745

History: CECT 4032. DSM 15675, LMG 13305, NCTC 11994, **NBIMCC 8632**, **WDCM 00019**. Strain F.646/86. Associated with case of meningitis after eating soft cheese. Colindale (London), United Kingdom

Serotype 4b

Cultivation: Medium 126, 492/37°C

Biosafety level: 2

Species identity: Confirmed by API Listeria (98.6%) and RapID STR (99.9%)

Application: Recommended as a phenotypically typical strain of *Listeria monocytogenes*. Quality control of foods and media

NBIMCC 8749

History: CECT 7467. ATCC 19111, LMG 21263, BCRC 14845, CCRC 14845, CECT 932, KCTC 3569, **WDCM 00020**. Strain S. Paterson LS/2, Seeliger Li20. Poultry. United Kingdom

Serotype 1

Cultivation: Medium 126, 492/37°C

Biosafety level: 2

Species identity: Confirmed by API Listeria (99.9%) and RapID STR (99.9%)

Application: Quality control of foods and media. Enteric research

NBIMCC 8787

History: LMG 21264. ATCC 13932, CIP 59.53, CCM 5580, NCTC 10527, **WDCM 00021**. Spinal fluid of child with meningitis, Germany. Culture contains two stable colony types giving identical protein profiles in SDS-PAGE

Serotype 4b

Cultivation: Medium 126, 492/30-37°C; rehydration fluid 14

Biosafety level: 2

Species identity: Confirmed by API Listeria (98.6%) and RapID STR (99.9%)

Application: Quality control of foods and media

NBIMCC 8849

History: CCUG 15527. ATCC 35152, CIP 104794, LMG 10470, CCM 5576, CECT 5873, NCTC 7973, BCRC 15342, **WDCM 00109**. Strain Seeliger SLCC 2371, Webb 58 XXIII. Guinea-pig, mesenteric lymph node, United Kingdom. Proposed as type strain, but rejected by the Judicial Com

Serotype 1/2a

Cultivation: Medium 126, 492/37°C; rehydration fluid 14

Biosafety level: 2

Species identity: Confirmed by API Listeria (99.9%) and Biolog (87.3%)

Application: Quality control of foods and media. Suitable for CAMP test. Enteric Research

***Micrococcus luteus* (Schroeter 1872) Cohn 1872**

NBIMCC 8934

History: VKM B-1314. B-1813, ATCC 4698, ATCC 15307, NCIMB 9278, IFO 3333, DSM 20030, CCM 169, CIP A 270, JCM 1464, NCFB 947, NCTC 2665, CCRC 11034, IAM 1056, NRRL B 287, LMG 4050, CECT 5863, CCUG 5858, CCTM 2979, **NBIMCC 1439**, **WDCM 00111**. (*Micrococcus lysodeikticus*)

Cultivation: Medium 44/30°C

Biosafety level: 1

Species identity: Confirmed to species group by VITEK 2 and Biolog GEN III

Application: **Type strain.** Quality control of media. Assay of lysozyme. Production of L-aspartil-L-phenylalanine esters and 6-aminopenicillanic acid

***Morganella morganii* subsp. *morganii* (Winslow et al. 1919) Fulton 1943**

NBIMCC 1392

History: NCTC 235. ATCC 25830, DSM 30164, IFO 3848, NCIMB 235, LMG 7874, CECT 173, JCM 1672, CCUG 6328, CIP A231, Pelczar M11, **WDCM 00112**. Human faeces, summer diarrhoea. (*Proteus morganii*)

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by Biolog Gen III (96.4%)

Application: **Type strain.** Quality control of media

***Paraclostridium bifermentans* (Weinberg & Séguin 1918) Sasi Jyothsna et al. 2016**

NBIMCC 8943

History: CECT 550. NCTC 506, CIP 110068, NCFB 1711, NCIMB 506, CN 4781, **WDCM 00079**. Strain F1. *Clostridium bifermentans*

Cultivation: Medium 126, 517/37°C, anaerobic

Biosafety level: 2

Species identity: Confirmed by Rapid ID 32 A (99.9%)

Application: Quality control of media and water

***Pediococcus acidilactici* Lindner 1887**

NBIMCC 8788

History: LMG 6411. ATCC 8042, DSM 20238, CCUG 21534, CECT 98, CIP 54.167, CCM 2425. Strain P-60. *Pediococcus lolii* (*Leuconostoc mesenteroides*, *Pediococcus cerevisiae*). Close to *Pediococcus pentosaceus*

Cultivation: Medium 182/37°C, preferably anaerobic

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.9%)

Application: Assay of amino acids, panthenol, dexpanthenol, pantothenic acid. Food testing

***Pediococcus damnosus* Claussen 1903**

NBIMCC 8757

History: CCUG 32251. ATCC 29358, DSM 20331, LMG 11484, NCIMB 12010, CIP 102264, CCM 3453, JCM 5886, **WDCM 00022**. Lager beer yeast.
Pediococcus cerevisiae

Cultivation: Medium 182/30°C, anaerobic

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.9%)

Application: **Type strain.** Quality control of foods and media

***Pediococcus pentosaceus* Mees 1934**

NBIMCC 8870

History: LMG 11488. ATCC 33316, CCUG 32205, DSM 20336, CIP 102260, NCTC 12956, NCFB 990, NCDO 990, NCIMB 1202, CECT 4695, JCM 5890, CCRC 12843, **WDCM 00158**. Dried American beer yeast, USA

Cultivation: Medium 182/30°C, anaerobic

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (99.9%)

Application: **Type strain.** Quality control of foods and media

***Proteus hauseri* O'Hara et al. 2000 VP**

NBIMCC 1393

History: NCTC 4175. ATCC 13315, NCIMB 4175, CIP 58.60, DSM 30118, JCM 1668, IFO 3851, CECT 484, LMG 2096, CCTM 2791, CCUG 6327, Sakazaki 366, strain Lehman. *Proteus vulgaris*

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by Biolog Gen III (96.9%)

Application: Former type strain of *Proteus vulgaris*. Assay of valine and leucine. Produces restriction endonucleases PvuI, PvuII. Testing bactericides. Quality control strain for Abbott, API, and Sensititre products

***Proteus mirabilis* Hauser 1885**

NBIMCC 8747

History: CECT 4168. ATCC 29906, CCRC 13991, CCUG 26767, CIP 103181, DSM 4479, LMG 3257, NCTC 11938, **WDCM 00023**

Cultivation: Medium 14, 129/37°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.9%)

Application: **Type strain.** Quality control of foods, media and water. Assay of antimicrobial preservatives. DNA hybridization reference strain

***Pseudomonas aeruginosa* (Schroeter 1872) Migula 1900**

NBIMCC 1390

History: IMET 10905. ATCC 9027, LMG 8029, IFO 13275, CCM 1961, DSM 1128, NCIMB 8626, CIP 82.118, **WDCM 00026**. Outer ear infection

Cultivation: Medium 13, 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (91%), API 20 NE (99.9%) and Biolog (96%)

Application: Quality control of media. European Pharmacopoeia. Assay of antimicrobial preservatives (in parenteral and ophthalmic preparations; in pharmaceuticals and cosmetics)

NBIMCC 3590

History: LMG 9009. ATCC 15442, NCIMB 10421, CECT 116, CIP 103467, DSM 939, IFO 13736, CCRC 12450, CCUG 2080, CNCTC Ps 168/79. Animal room water bottle. Culture contains two stable colony types giving identical protein profiles in SDS-PAGE. Does not produce pyocyanin

Cultivation: Medium 14, 461/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%) and API 20 NE (99.9%)

Application: Assay of slimicides. Testing of disinfectants, antiseptics and germicides. Testing of bacterial resistance of textiles

NBIMCC 3700

History: LMG 6395. ATCC 27853, CCUG 1423, CCUG 17619, CCUG 7737, CECT 108, CIP 76.110, DSM 1117, NCIMB 12469, JCM 6119, CCRC 11864, **WDCM 00025**. Strain Boston 41501. Blood culture. Culture contains two stable colony types giving identical protein profiles in SDS-PAGE

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (93%) and API 20 NE (99.5%)

Application: Quality control of foods, media and water. Testing of antibiotic susceptibility of bacteria. Reference strain for API, Vitek and Micro-Media

NBIMCC 3732

History: CECT 110. ATCC 10145, CCM 481, CCTM La 2773, CCRC 10944, CFBP 2466, CIP 100.720, CNCTC Ps 153/77, DSM 50071, ICPB 2523, IFO 3756, JCM 5962, NRRL B-771, NCTC 10332, LMG 1242, NCFB 1369, NCIB 8295, PCM 499, VKM B-588, CCUG 551, **WDCM 00024**

Cultivation: Medium 14/32°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (91%), API 20 NE (99.9%) and Biolog (100%)

Application: **Type strain.** Quality control of foods and media. Bacterial resistance testing of latex paint. Control strain for API products. Testing of antibiotic susceptibility of bacteria

NBIMCC 8746

History: CECT 4080. CIP A22, LMG 10639, NCIMB 13056, CCTM La 2774, **WDCM 00027**. Wound
Cultivation: Medium 129, 496/37°C
Biosafety level: 2
Species identity: Confirmed by API 20 E (99.9%)
Application: Quality control of airborne disinfection. Testing of disinfectants

NBIMCC 8988

History: CCUG 67716. NCTC 12951, CECT 8735, DSM 101013, **WDCM 00207**. Strain W. Urine, Newcastle, England
Cultivation: Medium 14, 126/37°C
Biosafety level: 2
Species identity: Confirmed by Biolog Gen III (91.4%)
Application: Quality control of water and media

***Pseudomonas fluorescens* Migula 1895**

NBIMCC 8758

History: CCUG 1253. ATCC 13525, CCM 2115, CCRC 11028, CIP 69.13, CNCTC Ps 154/77, DSM 50090, JCM 5963, LMG 1794, NCIMB 9046, NCTC 10038, **WDCM 00115**. Water tank pre-filter, England.
Pseudomonas lemonnierii. Biotype A
Cultivation: Medium 14/30°C
Biosafety level: 1
Species identity: Confirmed by API 20 NE (99.9%)
Application: **Type strain.** Quality control of foods, media and water. Assay of antimicrobial preservatives

***Pseudomonas fragi* (Eichholz 1902) Gruber 1905**

NBIMCC 8869

History: LMG 2191. ATCC 4973, ATCC 13221, DSM 3456, CIP 55.4, NCTC 10689, CCM 1974, CECT 446, CCUG 556, CCEB 387, IFO 3458, BCRC 11019, NCDO 752, NCIMB 8542, NRRL B-25, **WDCM 00116**. Culture contains two stable colony types giving identical profiles in fatty acid analysis
Cultivation: Medium 14, 461/30°C
Biosafety level: 1
Species identity: Confirmed by Biolog Gen III (99.5%)
Application: **Type strain.** Quality control of foods and media

***Pseudomonas putida* (Trevisan 1889) Migula 1895**

NBIMCC1090

History: BTCC. ATCC 12633, CIP 52.191, CCEB 848, NCTC 10936, CECT 324, DSM 50202, IFO 14164, JCM 3697, LMG 2257, NCIMB 9494, VKM B 1301, CCUG 12690, ICMP 2758, CNCTC Ps 161/78, Stanier 90, **WDCM 00117**. Lactate enrichment. USA. (*Pseudomonas fluorescens*). Biotype A

Cultivation: Medium 14/26°C

Biosafety level: 1

Species identity: Confirmed by Biolog (95%)

Application: **Type strain.** Quality control of media. Bacteriophage host. Degradation of aromatic acids

***Rhodococcus hoagii* (Morse 1912) Kämpfer et al. 2014**

NBIMCC 1230

History: CECT 555. ATCC 25729, ATCC 6939, DSM 43349, DSMZ 20307, IFO 14956, JCM 1311, NCTC 1621, CCM 3429, CCRC 12859, CCUG 20987, CCUG 23606, CIP 54.72, LMG 5358, LMG 18452, NRRL B-16538, PCM 559, Goodfellow R71, Gordon 1621, **WDCM 00028**. Lung abscess of foal, Sweden. *Rhodococcus equi*. (*Corynebacterium equi*). Avirulent, lacks virulence-associated proteins and plasmid

Cultivation: Medium 14, 44/37°C

Biosafety level: 2

Species identity: Confirmed by Biolog (99%)

Application: **Type strain.** Quality control of foods. CAMP test for *L. monocytogenes*

***Salmonella enterica* subsp. *enterica* (ex Kauffmann and Edwards 1952)
Le Minor and Popoff 1987**

NBIMCC 2333

History: CECT 545. CIP 80.39, DSM 4224, LMG 18222, CCUG 21354, CNCTC SK 103, NCTC 6017, CCTM La 2697, **WDCM 00029**. Strain 74. *Salmonella choleraesuis* subsp. *choleraesuis* (*Salmonella abony*)

Serotype: **Abony.** Antigenic formula: 1, 4, 5, 12: b: e, n, x

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 and serological test

Application: Quality control of foods and water. Antibacterial preservatives testing in parenteral and ophthalmic preparations. European Pharmacopoeia

NBIMCC 3554

History: ATCC 15480. Strain HWS 51. *Salmonella choleraesuis* subsp. *choleraesuis* ser. Dublin (*Salmonella* sp.)

Serotype: **Dublin.** Antigenic formula: 1,9,12:g, p:-

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by ENTEROtest 24 (98.7%), VITEK 2 and serological test

Application: **Type strain.** Production of vaccine. Enteric research

NBIMCC 3669

History:	CIP 104.115. ATCC 14028, DSM 19587, LMG 14933, CDC 6516-60, NCIB 13284, NCTC 12023, WDCM 00031 . <i>Salmonella choleraesuis</i> subsp. <i>choleraesuis</i> ser. Typhimurium (<i>Salmonella typhimurium</i>). Bovine septicaemic liver. Two stable colony types showing minor differences in SDS-PAGE
Serotype:	Typhimurium . Antigenic formula: 4, 5, 12: i: 1, 2
Cultivation:	Medium 14/37°C
Biosafety level:	2
Species identity:	Confirmed by VITEK 2, API 20E and serological test
Application:	Quality control of foods, media and water

NBIMCC 4798

History:	BTCC. CIP. <i>Salmonella choleraesuis</i> subsp. <i>choleraesuis</i> . (<i>Salmonella agona</i>)
Serotype:	Agona . Antigenic formula: Group O:4 (B):1,4,(5),12:f,g,s:(1,2)
Cultivation:	Medium 14/37°C
Biosafety level:	2
Species identity:	Confirmed by serological test
Application:	Quality control

NBIMCC 8691

History:	CECT 4300. ATCC 13076, CIP 82.97, LMG 10395, CCRC 10744, CNCTC SK 64, DSM 17420, CCUG 32352, NCTC 12694, CCM 7189, VTT E-97834, WDCM 00030 . Strain K-1891. <i>Salmonella choleraesuis</i> subsp. <i>choleraesuis</i> ser. Enteritidis (<i>Salmonella enteritidis</i>). Culture contains two stable colony types providing identical profiles in API 20E
Serotype:	Enteritidis . Antigenic formula: 1, 9, 12:g:m:-.
Cultivation:	Medium 14/37°C
Biosafety level:	2
Species identity:	Confirmed by Biolog Gen III (77.6%), API 20 E, VITEK 2 and serological test
Application:	Type strain of <i>Salmonella enteritidis</i> . Quality control of foods, media and water. Enteric Research

***Shigella sonnei* (Levine 1920) Weldin 1927**

NBIMCC 8646

History:	CCUG 32351. ATCC 25931, CIP 104223, LMG 10473, NCTC 12984, NCDC 1120-66. Human feces. Panama
Cultivation:	Medium 14/37°C
Biosafety level:	2
Species identity:	Confirmed by VITEK 2 (94%)
Application:	Quality control strain for bioMerieux Vitek and Difco products. Media testing

***Staphylococcus aureus* subsp. *aureus* Rosenbach 1884**

NBIMCC 509

History: BTCC. ATCC 6538 P, FDA 209 P, CIP 53.156, NCIMB 8625, IFO 3061, NCTC 7447, NRRL B 313, LMG 8195, DSM 346, CCM 2022, CCUG 1828, CECT 240, **WDCM 00033**

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%) and ID 32 STAPH (99.6%)

Application: Quality control of foods and media. Sterility testing. Assay of amikacin, cefazolin, cefadroil, doxycyclin, kanamycin, neomycin, oxacyclin, oxytetracycline, penicillin, penicillin G, tetracycline, tobramycin

NBIMCC 3081

History: NCFB 907. ATCC 9144, DSM 683, CIP 53.154, LMG 10640, NCTC 6571, NCIMB 6571, CCM 2107, NRRL B-314, **WDCM 00035**. Strain 3R7089 Oxford. Weakly coagulase positive

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%)

Application: Quality control of disinfectants. Assay of antibiotics. Sensitivity test

NBIMCC 3359

History: LMG 8064. ATCC 6538, DSM 799, FDA 209, NCIMB 9518, NCTC 10788, CIP 4.83, IFO 13276, CCUG 10778, CECT 239, CNCTC Mau 29/58, **WDCM 00032**. Human lesion

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (98%)

Application: Quality control of foods, media and water. European Pharmacopoeia. Assay of antibiotics

NBIMCC 3671

History: CIP 103.428, ATCC 29737, CCRC 11551, DSM 3463, CCUG 19207, CNCTC 110/88, LMG 10272, NCIMB 12703

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%) and API Staph (97.8%)

Application: Assay of antibiotics. Sterility testing

NBIMCC 3703

History: LMG 8224. ATCC 25923, CECT 435, CIP 76.25, CCUG 7738, CCUG 17621, CNCTC 80/73, DSM 1104, JCM 2413, NCIMB 12702, **WDCM 00034**. Strain Seattle 1945. Clinical isolate

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%), ID 32 STAPH (99.8%) and STAPHYtest 16 (99.8%)

Application: Quality control of foods, media and water. Assay of antibiotics, preservatives, wood smoke condensate. Standard strain of Kirby-Bauer in vitro disk susceptibility method. Quality control strain for API products. CAMP test for *Listeria*

NBIMCC 3999

History: JCM 2874. ATCC 29213, **WDCM 00131**. Strain Wichita. Wound

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%)

Application: Susceptibility testing. Susceptible control strain for screening test for oxacillin-resistant Staphylococci. Quality control strain for API, BBL, bioMerieux Vitek, Micro-Media, MicroScan and Sensititre products

NBIMCC 8327

History: CECT 5190. ATCC 43300, LMG 15975, CCM 4750, **WDCM 00211**. Kansas, USA. Clinical isolate

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (99%)

Application: Testing of antimicrobial susceptibility. Resistant to methicillin and oxacillin

***Staphylococcus epidermidis* (Winslow and Winslow 1908) Evans 1916**

NBIMCC 1093

History: BTCC. ATCC 14990, CCM 2124, CIP 81.55, DSM 20044, CECT 232, CCUG 39508, NCIMB 12721, NCTC 11047, LMG 10474, NCIMB(QC) 50082, JCM 2414, NBRC 100911, NCAIM B.01066, **WDCM 00132**. Strain Fussel, R. Hugh 2466. Nasal cavity

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by ID 32 STAPH (92.8%)

Application: **Type strain.** Quality control of media, water and disinfectants. Control strain for Slidex Staph Plus and API products. Sterility testing

NBIMCC 3486

History: LMG 10273. ATCC 12228, NCIMB 8853, DSMZ 1798, CIP 68.21, IFO 12993, FDA PCI 1200, WHO 12, **NBIMCC 8937, WDCM 00036.**
Micrococcus pyogenes var. *albus*

Cultivation: Medium 14/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (98%) and ID 32 STAPH (98%)

Application: Quality control of foods and media. Assay of antibiotics

***Staphylococcus saprophyticus* subsp. *saprophyticus* (Fairbrother 1940)
Shaw et al. 1951**

NBIMCC 3348

History: NCAIM B. 01067. CCM 883, ATCC 15305, NCIMB 8711, CIP 76.125, DSM 20229, JCM 2427, NCFB 948, NCTC 7292, CCUG 3706, Cowan S-41, **WDCM 00159.** *Staphylococcus saprophyticus*. Peptidoclycan type: L-Lys-Gly-4-5, L-Ser

Cultivation: Medium 14, 44, 129/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (96%) and API Staph (71.9%)

Application: **Type strain.** Quality control of foods and media

***Streptococcus pneumoniae* (Klein 1884) Chester 1901**

NBIMCC 8789

History: LMG 14545. ATCC 33400, DSM 20566, CIP 102911, CCUG 28588, CECT 993, CCRC 14733, NCTC 7465. Strain SV1. Serotype 1

Cultivation: Medium 126, 492, 521/37°C, microaerophilic

Biosafety level: 2

Species identity: Confirmed by RapID STR (99.9%)

Application: **Type strain.** Quality control strain

***Streptococcus pyogenes* Rosenbach 1884**

NBIMCC 941

History: NCFB 2381. ATCC 12344, CIP 56.41, NCTC 8198, DSM 20565. Scarlet fever

Cultivation: Medium 126/37°C

Biosafety level: 2

Species identity: Confirmed by VITEK 2 (96%)

Application: **Type strain.** Quality control strain

***Streptococcus salivarius* subsp. *thermophilus* (Orla-Jensen 1919)
Farrow and Collins 1984**

NBIMCC 3916

History: CCUG 21957. ATCC 19258, DSM 20617, CIP 102303, CECT 986, LMG 6896, NCFB 573, NCIMB 8510, CCRC 13869, CNCTC 28/89, **WDCM 00134**, Shattock strain B of R. Pasteurized milk. Does not grow at 50°C

Cultivation: Medium 182, 305/37°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (98.2%)

Application: **Type strain.** Quality control strain. Production of aminopeptidase N

***Vibrio parahaemolyticus* (Fujino et al. 1951) Sakazaki et al. 1963**

NBIMCC 8743

History: CECT 511. ATCC 17802, CCUG 14474, CCUG 15657, CECT 589, CIP 75.2, DSM 10027, LMG 2850, NCIMB 1902, NCTC 10903, NRRL B-4167, **WDCM 00037**. Patient suffering from “Shirashu” food poisoning, Japan. *Beneckeia parahaemolytica*

Cultivation: Medium 14+3% NaCl, 522/37°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.8%)

Application: **Type strain.** Quality control of foods and media. Enteric research. Waterborn pathogen research

***Vibrio vulnificus* (Reichelt et al. 1979) Farmer 1980**

NBIMCC 8965

History: CCUG 13448. ATCC 27562, CECT 529, CIP 75.04, DSM 10143, LMG 13545, NCTC 13647, NCIMB 2046, BCRC 12905, JCM 3725, **WDCM 00139**. Strain Baumann 324. Human blood, USA. *Beneckeia vulnifica*

Cultivation: Medium 461+1%NaCl, 522/37°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.9%)

Application: **Type strain.** Quality control of foods and media. Enteric research. Waterborn pathogen research

***Weissella viridescens* (Niven and Evans 1957) Collins et al. 1994**

NBIMCC 8897

History: CNCTC 6448. ATCC 12706, DSM 20410, CCUG 21533, CCUG 30502, CIP 102810, LMG 3507, CECT 283, CCM 56, NCDO 1655, NCIMB 8965, JCM 1174, CNCTC 13, BCRC 11650, **WDCM 00105**. Strain S38A. Cured meat products. *Lactobacillus viridescens*

Cultivation: Medium 530/30°C, microaerophilic

Biosafety level: 1

Species identity: Confirmed by API 50 CHL (96.1%)

Application: **Type strain.** Quality control of media. Assay of thiamine

***Weizmannia coagulans* (Hammer 1915) Gupta et al. 2020**

NBIMCC 8941

History: DSM 1. ATCC 7050, CIP 66.25, CECT 12, CCUG 7417, CCM 2013, LMG 6326, NCTC 10334, JCM 2257, IFO 12583, NCIMB 9365, IAM 1115, CCRC 10606, CNCTC 5646, VKM B 497, **WDCM 00002**. Strain 609; NRS 609. Evaporated milk. *Bacillus coagulans*

Cultivation: Medium 13, 14/37°C

Biosafety level: 1

Species identity: Confirmed by API 50 CHB (98.4%)

Application: **Type strain.** Quality control of foods, media and water. Production of glycoside hydrolase inhibitor

***Yersinia enterocolitica* subsp. *enterocolitica* (Schleifstein and Coleman 1939) Frederiksen 1964**

NBIMCC 8739

History: LMG 7899. ATCC 9610, CCUG 11291, CCUG 12369, CIP 80.27, DSM 4780, JCM 7577, NCTC 12982, **WDCM 00038**. Face with glanders-like infection, France. (*Yersinia enterocolitica*, *Bacterium enterocoliticum*). Biotype 1. Culture contains two stable colony types giving identical gelelectrophoretic protein profiles (SDS-PAGE)

Serotype O:8

Cultivation: Medium 461, 492/28°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.2%)

Application: **Type strain.** Quality control of foods and media

***Yersinia enterocolitica* subsp. *paleartica* Neubauer et al. 2000**

NBIMCC 8791

History: LMG 15558. CCUG 8233, CIP 81.41, DSM 9676, **NBIMCC 8872**, **WDCM 00039**. Human mesenteric lymph node, Sweden. (*Yersinia enterocolitica*). Biovar 4, lysotype 8

Serotype O:3

Cultivation: Medium 492/28°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (99.9%)

Application: Quality control of foods and media

NBIMCC 9008

History: CIP 106945. DSM 13030, CCUG 52867, CECT 9144, **WDCM 00216**. Strain Y11. Human faeces, Germany. Biovar 4

Serotype O:3

Cultivation: Medium 14, 461, 521/28-30°C

Biosafety level: 2

Species identity: Confirmed by API 20 E (98.7%) and Biolog Gen III (95.0% subsp. *paleartica*)

Application: **Type strain.** Quality control of foods and media