Table S1. Associated MIGS records of *Peptostreptococcaceae* spp. ACC19a, CM2, CM5, OBRC8, and AS15.

| MIGS ID | field name | description | | | | |
|---|---|---|---|---|---|---|
| | | strain ACC19a | strain CM2 | strain CM5 | strain OBRC8 | strain AS15 |
| MIGS-1 | Submit to INSDC/Trace archives | | | | | |
| 1.1 | PID | 49887 | 49889 | 49891 | 78565 | 78563 |
| 1.2 | GCAT_ID | 007931_GCAT | 007932_GCAT | 007930_GCAT | 010963_GCAT | 010962_GCAT |
| | NCBI Taxon ID | 796937 | 796939 | 796940 | 796941 | 1115804 |
| | Genome Data | AFZE00000000 | AFZF00000000 | AFZG00000000 | ALNK00000000 | ALJM00000000 |
| | HMP_ID | 9629 | 9630 | 9628 | 1143 | 1142 |
| | HOMD ID | HOMD: tax_081 | HOMD: tax_081 | HOMD: tax_081 | HOMD: tax_081 | HOMD: tax_377 |
| | IMG Object ID | 2513237269 | 2562617100 | 2513237271 | 2531839269 | 2537561888 |
| MIGS-2 | MIGS CHECK LIST TYPE | | | | | |
| | Domain | Bacteria | Bacteria | Bacteria | Bacteria | Bacteria |
| | Phylum | Firmicutes | Firmicutes | Firmicutes | Firmicutes | Firmicutes |
| | Class | Clostridia | Clostridia | Clostridia | Clostridia | Clostridia |
| | Order | Clostridiales | Clostridiales | Clostridiales | Clostridiales | Clostridiales |
| | Family | Peptostreptococcaceae | Peptostreptococcaceae | Peptostreptococcaceae | Peptostreptococcaceae | Peptostreptococcaceae |
| MIGS-3 | Project Name | Peptostreptococcaceae sp. ACC19a | Peptostreptococcaceae sp. CM2 | Peptostreptococcaceae sp. CM5 | Peptostreptococcaceae sp. OBRC8 | Peptostreptococcaceae sp. AS15 |
| | Genus | unclassified | unclassified | unclassified | unclassified | [*Eubacterium*] |
| | Species | unclassified | unclassified | unclassified | unclassified | [*Eubacterium*] *yurii* |
| | Subspecies | unclassified | unclassified | unclassified | unclassified | *margaretiae* |
| | Strain | ACC19a | CM2 | CM5 | OBRC8 | AS15 |
| | NCBI status | complete | complete | complete | complete | complete |
| MIGS-4 | Geographic Location | Boston, MA, USA | Boston, MA, USA | Boston, MA, USA | Boston, MA, USA | Boston, MA, USA |
| 4.1 | Latitude | 42° 21′ N | 42° 21′ N | 42° 21′ N | 42° 21′ N | 42° 21′ N |
| 4.2 | Longitude | 71° 03′ W | 71° 03′ W | 71° 03′ W | 71° 03′ W | 71° 03′ W |
| 4.4 | Altitude | 43 m | 43 m | 43 m | 43 m | 43 m |
| 4.5 | Isolation Site | Human oral cavity | Human oral cavity | Human oral cavity | Human oral cavity | Human oral cavity |
| 4.6 | Isolation | USA | USA | USA | USA | USA |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Country | | | | | |
| | Isolation Source | Maria Sizova and Slava Epstein | Maria Sizova and Slava Epstein | Maria Sizova and Slava Epstein | Maria Sizova and Slava Epstein | Maria Sizova and Slava Epstein |
| MIGS-5 | Sample Collection Date | March 2010 | March 2010 | March 2010 | March 2010 | March 2010 |
| MIGS-6 | Habitat | Human oral cavity | Human oral cavity | Human oral cavity | Human oral cavity | Human oral cavity |
| 6.1 | temperature | 37˚ C | 37˚ C | 37˚ C | 37˚ C | 37˚ C |
| 6.2 | pH | Neutral | Neutral | Neutral | Neutral | Neutral |
| 6.3 | salinity | Normal | Normal | Normal | Normal | Normal |
| MIGS-7 | Subspecific genetic lineage | not reported | not reported | not reported | not reported | not reported |
| MIGS-9 | Number of replicons | 1 | 1 | 1 | 1 | 1 |
| MIGS-10 | Plasmid Count | 0 | 0 | 0 | 0 | 0 |
| MIGS-11 | Estimated Size | 2542 kb | 2313 kb | 2594 kb | 2553 kb | 2655 kb |
| | ORFS | 2331 | 2030 | 2379 | 2313 | 2336 |
| | Chromosome Count | 1 | 1 | 1 | 1 | 1 |
| MIGS-12 | Isolation Pubmed ID | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 |
| MIGS-13 | Culture Collection | BEI HM-483 | BEI HM-484 | BEI HM-485 | BEI HM-765 | BEI HM-766 |
| | Goldstamp | Gi06852 | Gi06853 | Gi06851 | Gi09663 | Gi09662 |
| | Publication | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 |
| MIGS-14 | Pathogenicity | not reported | not reported | not reported | not reported | not reported |
| MIGS-15 | Biotic Relationship | Commensal | Commensal | Commensal | Commensal | Commensal |
| MIGS 16 | Host Name | Homo sapiens | Homo sapiens | Homo sapiens | Homo sapiens | Homo sapiens |
| | Host Taxon ID | 9606 | 9606 | 9606 | 9606 | 9606 |
| | Host Gender | Female | Female | Female | Female | Female |
| | Host Age | 25 | 24 | 24 | 21 | 27 |
| | Host Race | African-American | Caucasian | Caucasian | Caucasian | African-American |
| MIGS-17 | Host specificity or range (taxid) | Oral cavity | Oral cavity | Oral cavity | Oral cavity | Oral cavity |
| | Body Sample Site | Oral cavity | Oral cavity | Oral cavity | Oral cavity | Oral cavity |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Body Product | Dental plaque | Dental plaque | Dental plaque | Dental plaque | Dental plaque |
| | Body Sample Subsite | Subgingival | Subgingival | Subgingival | Subgingival | Subgingival |
| | Host Comments | not reported | not reported | not reported | not reported | not reported |
| MIGS-18 | Host Health | Healthy | Healthy | Healthy | Healthy | Healthy |
| MIGS-19 | Trophic Level | Commensal | Commensal | Commensal | Commensal | Commensal |
| MIGS-22 | Relationship to Oxygen | Strictly anaerobic | Strictly anaerobic | Strictly anaerobic | Strictly anaerobic | Strictly anaerobic |
| | Carbon Source | Yeast extract | Yeast extract | Yeast extract, Glucose, Sucrose, Maltose | Yeast extract, Glucose, Sucrose, Maltose | Yeast extract, Glucose, Sucrose, Maltose |
| MIGS-23 | Isolation and Growth conditions | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 |
| MIGS 28 | Library construction | Two 454 pyrosequencing libraries: one standard 0.6kb fragment library and one 2.5kb jump library | Two 454 pyrosequencing libraries: one standard 0.6kb fragment library and one 2.5kb jump library. Two Illumina libraries: one standard 180bp fragment library and one 3-5kb jump library | Two 454 pyrosequencing libraries: one standard 0.6kb fragment library and one 2.5kb jump library | Standard Paired End Illumina library generated for HiSEQ2000 | Standard Paired End Illumina library generated for HiSEQ2000 |
| 28.1 | Library Method | 0.6kb and 2.5kb | 0.6kb and 2.5kb 180bp and 3-5kb | 0.6kb and 2.5kb | 0.45 kb paired end library | 0.45 kb paired end library |
| 28.2 | Reads Count | 337046 | 25246427 | 354415 | 7983051 | 865772 |
| MIGS-29 | Sequencing platforms | 454 | 454; Illumina HiSeq 2000 | 454 | Illumina HiSeq 2000 | Illumina HiSeq 2000 |
| MIGS-30 | Assemblers | Newbler v. 2.3 PostRelease-11/19/2009 | Newbler v. 2.3 PostRelease-11/19/2009 and ALL-PATHS version R39099 | Newbler v. 2.3 PostRelease- | Newbler v. 2.3 PostRelease-11/19/2009 | Newbler v. 2.3 PostRelease-11/19/2009 and ALL-PATHS version R39099 |
| 30.2 | estimated error rate | less than 1 in 10,000 bp | less than 1 in 1,000,000 bp | less than 1 in 10,000 bp | Less than 3% | Less than 3% |

| | | | | | | |
|---|---|---|---|---|---|---|
| 30.3 | method of calculation | | | | utgErrorRate calculated value with Celera Assembler | utgErrorRate calculated value with Celera Assembler |
| MIGS-31 | Finishing Quality | High Quality Draft | High Quality Draft | High Quality Draft | High Quality Draft | High Quality Draft |
| 31.1 | Sequencing Status | Complete | Complete | Complete | Complete | Complete |
| | Sequencing Quality | Level 2: High-Quality Draft | Level 2: High-Quality Draft | Level 2: High-Quality Draft | Level 2: High-Quality Draft | Level 2: High-Quality Draft |
| 31.2 | Fold Coverage | 40× | 282× | 39× | 32× | 31× |
| 31.3 | Contig Count | 59 | 19 | 106 | 40 | 52 |
| MIGS-32 | Relevant SOPs | not reported | not reported | not reported | not reported | not reported |
| MIGS-33 | Genome Database | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) |
| MIGS-34 | Gene calling Method | PRODIGAL | PRODIGAL | PRODIGAL | GLIMMER | GLIMMER |
| MIGS-35 | GC Content | 30% | 30% | 30% | 31% | 32% |
| MIGS-36 | Project Status | Complete | Complete | Complete | Complete | Complete |
| | Availability | Public | Public | Public | Public | Public |
| | Sequencing Centers | Broad Institute | Broad Institute | Broad Institute | JCVI | JCVI |
| | Funding | NIH | NIH | NIH | NIH | NIH |
| | Contact Name | Broad Institute | Broad Institute | Broad Institute | JCVI | JCVI |
| MIGS-37 | | | | | | |
| 37.1 | Cell Shape | Rods with round ends | Rods with round ends | Rods with round ends | Rods with round ends | Rods with square ends |
| 37.2 | Motility | Motile | Motile | Motile | Motile | Motile |
| 37.3 | Sporuation | Non-sporulating | Non-sporulating | Non-sporulating | Non-sporulating | Non-sporulating |
| 37.4 | Pressure | atmospheric | atmospheric | atmospheric | atmospheric | atmospheric |
| 37.5 | Cell Diameter (um) | 0.4 - 0.8 | 0.5 - 0.7 | 0.5 - 0.7 | 0.6 - 0.8 | 0.4 - 0.5 |
| 37.6 | Cell Length (um) | 1.2 - 2.5 | 1.0 - 2.3 | 1.3 - 2.7 | 1.4 - 3.5 | 1.5 - 4.7 |
| 37.7 | Color | not reported | not reported | not reported | not reported | not reported |

| | | | | | | |
|---|---|---|---|---|---|---|
| 37.8 | Gram Staining | Gram-positive | Gram-positive | Gram-positive | Gram-positive | Gram-positive |
| 37.9 | Cell arrangement | individual cells, some in chains | individual cells, some in chains | individual cells, some in chains | individual cells, some in chains | individual cells, some in rosettes |
| | Disease | Unknown | Unknown | Unknown | Unknown | Unknown |
| 37.10 | Metabolism | acetate and propionate producer | acetate and propionate producer | acetate and propionate producer | not reported | not reported |
| 37.12 | Temperature Range | Mesophile | Mesophile | Mesophile | Mesophile | Mesophile |
| MIGS-38 | | | | | | |
| 38.1 | Contact Name | Ashlee Earl | Ashlee Earl | Ashlee Earl | Manolito Torralba | Manolito Torralba |
| 38.2 | Contact email | hmpstrainsbroad@broad.mit.edu | hmpstrainsbroad@broad.mit.edu | hmpstrainsbroad@broad.mit.edu | hmpstrains@jcvi.org | hmpstrains@jcvi.org |
| | Locus Tag | HMPREF9629 | HMPREF9630 | HMPREF9628 | HMPREF1143 | HMPREF1142 |
| | Completion Date | 2014-01-09 | 2014-01-09 | 2014-01-09 | 2012-08-27 | 2014-01-05 |
| | Publication | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 | PMID: 22057871 |
| | Project Relevance | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) | Human Microbiome Project (HMP) |