

TRUC	Group	Phylum	Accession number
Archae		Euryarchaeotes	AE000782.1
			CP005934.1
			CP039138.1
			FR746099.1
			CP000816.1
			PRJEB30627
			L77117.1
			CP000300.1
			CP000745.1
			CP000559.1
			CP000562.1
			AE009439.1
			CP000477.1
			CP009512.1
			CP000102.1
			CP000254.1
			AE000666.1
			CR936257.1
			AE017261.1
			BA000001.2
			AP006878.1
			BA000011.4
		Crenarchaeotes	BA000002.3
			CP000852.1
			CP000493.1
			CP000682.1
			AE010299.1
			CP000660.1
			CP000575.1
			BA000023.2
			CP001014.1
		Thaumarchaeotes	CP000866.1
		CP007536.1	
		Candidatus Korarchaeota	CP000968.1
		Aigarchaeota	BA000048.1
		Asgard Group	ASM98684v1
		CP042905.1	
Archae	DPANN group	unclassified DPANN group	CP040089.1
		Micrarchaeota	CP019964.1
		Nanoarchaeota	CP010514.1
			AE017199.1
			v1.0
			ASM285v2

Eukaryote	Opisthokonta	gb ABEP00000000.2
		KH
		ASM9104v1
		PA42 4.1
		Release 6 plus ISO1 MT
		CP001943.1
		GRCh38.p13
		Hydra_RP_1.0
		JCVI_LOUSE_1.0
		sacCer3
		Skow_1.1
		ASM294v2
		Spur_5.0
	Viridiplantae	TAIR10.1
		ASM9098v2
		version 140606
		Phypa V3
	Stramenopiles	ASM14294v1
	Alveolata	ASM16542v1
	Amoebozoa	Acastellanii.strNEFF v1
		dicty_2.7
	Euglenozoa	ASM272v1
	Metamonada	UU_WB_2.1
Candidate phyla radiation	Kazan	CP011216.1
	Parcubacteria	CP011209.1
		CP011215.1
	Microgenomates	CP011214.1
		CP011210.1
	Katanobacteria	CP006914.1
	Berkelbacteria	CP011213.1
	Saccharibacteria	ASM39243v1
		ASM351602v1
		ASM102969v1
		ASM50391v1
		ASM295275v1
		ASM80362v1
		CADDWL00000000
		ASM569721v1
		ASM1310084v1
		ASM1310082v1
		ASM569739v1
		ASM569705v1
		ASM569756v1
	Absconditabacteria	CP011268.1
		CP006913.1
	Crasilibacteria	CP017714.1

		Gram-negative bacteria	CP042461.1
Intracellular bacteria	Bacteroidetes/Chlorobi group	Enterobacteria	CP003263.1
			AP013293.1
			AP012548.1
		Enterobacteria	AP010872.1
			CP010049.1
			CP003315.1
			CP013920.1
			CP002243.1
			BA000003.2
			CP008985.1
		Proteobacteria	CP003468.1
			CP016343.1
			CP003543.1
			CP008699.1
			CP002918.1
			CP002161.1
			RcoCa1.0
			PRJEB23962
			AT-1
			CP007481.1
			CP021173.1
		Terrabacteria	AE014184.1
		Chlamydia	FR872580.1
			AE001363.1
		Unclassified bacteria	HG793133.1
		Acidobacteria	CP001472.1
			CP003130.1
		Aquificiae	CP001130.1
			AE000657.1
		Firmicutes	CP061341.1
			CR954253.1
			PRJEB20106
			CP003058.1
			AE008691.1
			CP001022.1
			PRJEB20368
			CP028842.1
			AM412317.1
			CP001176.1
			AL009126.3
			PRJEB16343
			PRJEB17078
		Planctomycetes	BX294133.1
		Deinococcus-thermus	AP008226.1
			CP003382.1

Bacteria	Other bacteria phyla	Actinobacteria	CP000481.1
			CU458896.1
			CP000850.1
			AL939104.1
			CP002047
		Bacterioidetes/Chlorobi group	AE006470.1
			CP000492.1
			CU207366.1
			LT598566
			PRJEB18268
			CP001699.1
		Verrucomicrobia	CP001032.1
		Thermotogae	CP000716.1
		Chloroflexi	CP000909.1
			AP012337.1
			CP000804.1
		Cyanobacteria	BA000045.2
			CP000117.1
			CP001037.1
		Proteobacteria	CP000153.1
			CP000361.1
			CP002667.1
			AM260522.1
			CP001999.1
			AE017285.1
			CP001189.1
			CP001340.1
			CP000230.1
			CP000089.1
			CP000302.1
			CP000510.1
			CP000143.2
			CP001124.1
			CP000462.1
			AE016825.1
			AM902716.1
			CP002824.1
			CP004399.1
			CP000529.1
			CP000083.1
			AE016853.1
			AE004091.2
			CP002287.1
			CP002877.1
			CP002599.1
			JC 119
			BA000040.2

			AM746676.1
		Spirochaetes	CP002116.1
			CP003115.1
			CP042818.1
			PRJEB27762
		Fusobacteria	AE009951.2
Giant viruses	Ascoviridae	NC_008361.1	
	Asfarvirus	AM712239	
	Iridoviridae	NC_005832.1	
		NC_008187.1	
	Marseilleviridae	ViralProj43573	
	Mimiviridae	MF782455.1	
		ViralProj59783	
		ViralProj60053	
		ASM296648v1	
		PSH01000001.1, UPSH0100000	
	Phycodnaviridae	NC_008724.1	
		NC_002687.1	
		LT906555.1	
	Pithoviridae	NC_032108.1	
		NC_023423.1	
	Poxviridae	NC_002520.1	
	Unclassified viruses	KJ614390.1	
		MW018138.1	
		KC977571	
		NC_027867.1	
		NC_034249.1	
		LT706986.1	
Mitochondria	NC_012920.1		
	NC_001823.1		
	NC_027264.1		
	NC_002084.1		
	NC_001637.1		
	FJ499473–FJ499490 , FJ514591–FJ514599		
	NC_008290.1		
Chloroplast	NC_008289.1		
	NC_012575.1		

Species	Genome size (Kb)	Number of coding genes	Number of COGs	Number of COG - J
<i>Archaeoglobus fulgidus</i>	2,178,400	2407	286	123
<i>Candidatus Methanomassiliicoccus intestinalis</i>	1,931,651	1826	177	92
<i>Haloarcula marismouti</i>	4,184,924	3142	187	89
<i>Haloquadratum walsbyi</i>	3,260,476	2907	184	86
<i>Ignicoccus hospitalis</i>	1,297,538	1434	169	86
<i>Methanobrevibacter smithii</i>	1,853,160	1605	191	91
<i>Methanocaldococcus jannaschii</i>	1,739,927	1715	190	91
<i>Methanococcoides burtonii</i>	2,575,032	2272	196	88
<i>Methanococcus maripaludis</i>	1,772,694	1788	198	95
<i>Methanocorpusculum labreanum</i>	1,804,962	1739	179	91
<i>Methanoculleus marisnigri</i>	2,478,101	2489	205	96
<i>Methanopyrus kandleri</i>	1,694,969	1691	181	98
<i>Methanosaeta thermophila</i>	1,879,471	1696	199	97
<i>Methanosarcina mazei</i>	4,142,816	3347	210	105
<i>Methanosphaera stadtmanae</i>	1,767,403	1534	187	96
<i>Methanospirillum hungatei</i>	3,544,738	3139	203	94
<i>Methanothermobacter thermautotrophicus</i>	1,751,377	1869	186	95
<i>Natronomonas pharaonis</i>	2,749,696	2694	185	87
<i>Picrophilus torridus</i>	1,545,895	1535	159	89
<i>Pyrococcus horikoshii</i>	1,738,505	2061	174	84
<i>Thermococcus kodakarensis</i>	2,088,737	2306	201	94
<i>Thermoplasma volcanium</i>	1,584,804	1526	159	86
<i>Aeropyrum pernix</i>	1,669,696	1700	171	92
<i>Caldivirga maquilingensis</i>	2,077,567	1963	159	79
<i>Hyperthermus butylicus</i>	1,667,163	1602	163	90
<i>Metallosphaera sedula</i>	2,191,517	2256	169	84
<i>Methanosarcina acetivorans</i>	5,751,492	4540	209	106
<i>Pyrobaculum arsenaticum</i>	2,121,076	2298	168	84
<i>Staphylothermus marinus</i>	1,570,485	1570	167	86
<i>Sulfolobus tokodaii</i>	2,694,756	2816	169	83
<i>Thermoproteus neutrophilus</i>	1,769,823	1966	173	89
<i>Nitrosopumilus maritimus</i>	1,645,259	1795	162	83
<i>Nitrososphaera viennensi</i>	2,527,938	3123	172	88
<i>Candidatus Korarchaeum cryptofilum</i>	1,590,757	1602	156	84
<i>Candidatus Caldiarchaeum subterraneum</i>	1,680,938	1742	143	79
<i>Lokiarchaeum sp.</i>	5,143,417	5384	157	87
<i>Prometheoarchaeum syntrophicum</i>	4,427,796	3944	164	79
<i>Archaeon LCINh</i>	973,463	1162	126	77
<i>Mancarchaeum acidiphilum</i>	952,257	952	116	65
<i>Nanopusillus acidilobi</i>	605,887	587	96	51
<i>Nanoarchaeum equitans</i>	490,885	536	113	71
<i>Amphimedon queenslandica</i>	166,699,561	9827	127	63
<i>Aspergillus niger</i>	34,006,671	10609	115	57

<i>Branchiostoma floridae</i>	521,895,125	28623	107	54
<i>Ciona intestinalis</i>	115,227,301	14096	107	55
<i>Cryptococcus neoformans</i>	19,051,922	6475	105	54
<i>Daphnia pulex</i>	189,550,516	30611	114	57
<i>Drosophila melanogaster</i>	143,726,002	27755	108	58
<i>Encephalitozoon intestinalis</i>	2,216,898	1799	147	54
<i>Homo sapiens</i>	3,099,706,404	71338	124	60
<i>Hydra vulgaris</i>	852,170,992	17002	104	54
<i>Pediculus humanus</i>	110,781,312	10775	98	54
<i>Saccharomyces cerevisiae</i>	12,157,105	5906	110	55
<i>Saccoglossus kowalevskii</i>	775,840,395	22111	101	54
<i>Schizosaccharomyces pombe</i>	12,591,251	5133	113	57
<i>Strongylocentrotus purpuratus</i>	921,855,793	22709	109	55
<i>Arabidopsis thaliana</i>	119,668,634	35176	151	72
<i>Micromonas commoda</i>	21,109,336	10140	149	75
<i>Ostreococcus tauri</i>	13,032,761	7662	137	74
<i>Physcomitrella patens</i>	472,081,022	35936	158	84
<i>Phytophthora infestans</i>	228,543,505	17797	116	58
<i>Paramecium tetraurelia</i>	72,094,543	39642	103	59
<i>Acanthamoeba castellanii</i>	42,019,824	14974	105	56
<i>Dictyostelium discoideum</i>	34,204,973	13191	108	60
<i>Leishmania major</i>	32,855,089	8265	79	48
<i>Giardia intestinalis</i>	12,078,186	7364	74	48
<i>Candidate division Kazan bacterium</i>	602,646	591	66	36
<i>Candidatus Wolfebacteria bacterium GW2011</i>	984,447	1022	52	31
<i>Candidatus Campbellbacteria bacterium</i>	752,630	739	53	30
<i>Candidatus woesebacteria bacterium</i>	819,458	909	62	35
<i>Candidatus Beckwithbacteria bacterium</i>	1,049,888	1113	66	35
<i>Candidate division WWE3 bacterium RAAC2</i>	878,109	871	54	28
<i>Berkelbacteria bacterium</i>	915,059	992	64	32
<i>Candidatus Saccharibacteria aalborgensis</i>	1,013,781	1,048	65	33
<i>Candidatus Saccharibacteria bacterium</i>	1,005,782	1,089	69	32
<i>Candidatus Saccharibacteria bacterium GW2011_GWC2_44_17</i>	1,038,683	1,052	67	32
<i>Candidatus Saccharibacteria bacterium RAAC3_TM7_1</i>	845,464	717	62	26
<i>Candidatus Saccharibacteria bacterium YM_S32_TM7_50_20</i>	1,450,269	1,524	64	28
<i>Candidatus Saccharibacteria oral taxon TM7x</i>	705,138	633	66	32
<i>Candidatus Minimicrobia massiliensis</i>	948,334	935	64	31
<i>TM7 phylum sp. oral taxon 488 AC001</i>	889,964	913	66	31
<i>TM7 phylum sp. oral taxon 488 AC002</i>	847,999	851	67	32
<i>TM7 phylum sp. oral taxon 488 CM006</i>	893,660	915	66	32
<i>TM7 phylum sp. oral taxon 952</i>	705,178	776	66	31
<i>TM7 phylum sp. oral taxon 955</i>	842,202	916	66	33
<i>TM7 phylum sp. oral taxon 957</i>	782,344	711	67	32
<i>Candidate division SR1 bacterium Aalborg AAW-1</i>	1,044,756	993	54	31
<i>Candidate division SR1 bacterium RAAC1</i>	1,177,760	1059	60	36
<i>Candidatus Gracilibacteria bacterium HOT-871</i>	1,184,529	1112	66	37

<i>Candidatus gracilibacteria bacterium</i>	1,343,103	1,196	70	36
<i>Candidatus uzinura diaspidicola</i>	263,431	227	39	29
<i>Candidatus Sulcia muelleri</i>	285,352	251	34	25
<i>Blattabacterium cuenoti</i>	632,490	584	60	37
<i>Candidatus Ishikawaella capsulata</i>	754,729	614	79	36
<i>Blochmannia endosymbiont of Camponotus</i>	773,940	584	69	41
<i>Wigglesworthia glossinidia</i>	719,535	635	68	39
<i>Candidatus Arsenophonus lipoptenae</i>	836,724	625	73	38
<i>Candidatus Moranella endobia</i>	538,294	406	70	43
<i>Buchnera aphidicola</i>	655,725	564	69	38
<i>Candidatus Baumannia cicadellinicola</i>	759,425	689	79	40
<i>Candidatus Profftella armatura</i>	464,857	366	60	38
<i>Candidatus Portiera aleyrodidarum</i>	359,359	267	36	27
<i>Candidatus Carsonella ruddii</i>	174,017	192	8	7
<i>Candidatus Hodgkinia cicadicola</i>	150,297	170	4	4
<i>Candidatus Tremblaya princeps</i>	138,931	116	15	12
<i>Candidatus Zinderia insecticola</i>	208,564	206	15	12
<i>Rickettsia conorii</i>	1,260,331	1,136	80	42
<i>Rickettsia fournieri</i>	1,447,740	1,282	91	45
<i>Rickettsia tamurae</i>	1,453,216	1,295	91	45
<i>Neorickettsia helminthoeca</i>	884,232	868	75	39
<i>Candidatus Nasuia deltocephalinicola</i>	144,602	159	7	4
<i>Tropheryma whipplei</i>	927,303	808	82	39
<i>Parachlamydia acanthamoebae</i>	3,072,383	2788	95	45
<i>Chlamydia pneumonia</i>	1,230,230	1052	73	38
<i>Candidatus Babela massiliensis (TM6)</i>	1,118,422	981	66	35
<i>Acidobacterium capsulatum</i>	4,127,356	3382	120	45
<i>Granulicella mallensis</i>	6,237,577	4815	123	44
<i>Hydrogenobaculum sp.</i>	1,516,013	1629	90	42
<i>Aquifex aeolicus</i>	1,590,791	1522	104	42
<i>Lactobacillus kefiranofaciens</i>	2,173,634	2026	111	47
<i>Lactobacillus delbrueckii</i>	1,864,998	2096	107	43
<i>Lactobacillus timonensis</i>	1,678,325	1,527	110	45
<i>Acidaminococcus intestini</i>	2,487,765	2404	108	43
<i>Thermoanaerobacter tengcongensis</i>	2,689,445	2588	118	41
<i>Exiguobacterium sibiricum</i>	3,040,786	3007	135	46
<i>Clostridium massiliodielmoense</i>	2,759,335	2491	122	48
<i>Clostridium botulinum</i>	3,858,511	3669	124	46
<i>Clostridium acetobutylicum</i>	3,903,260	3652	121	43
<i>Bacillus cereus</i>	5,419,036	5398	139	52
<i>Bacillus subtilis</i>	4,215,606	4331	135	49
<i>Bacillus tuaregi</i>	4,863,531	4440	136	50
<i>Bacillus mediterraneensis</i>	3,340,964	3219	134	48
<i>Rhodopirellula baltica</i>	7,145,576	7325	106	46
<i>Thermus thermophilus</i>	2,116,056	1973	105	48
<i>Deinococcus peraridilitoris</i>	4,513,714	3636	122	49

<i>Acidothermus cellulolyticus</i>	2,443,540	2157	107	45
<i>Mycobacterium abscessus</i>	5,090,491	4920	116	47
<i>Salinispora arenicola</i>	5,786,361	4917	126	52
<i>Streptomyces coelicolor</i>	9,054,847	7825	128	46
<i>Streptomyces bingchengensis</i>	11,936,683	10022	136	46
<i>Chlorobium tepidum</i>	2,154,946	2255	105	44
<i>Chlorobium phaeobacteroides</i>	3,133,902	2650	115	44
<i>Gramella forsetii</i>	3,798,465	3584	97	43
<i>Bacteroides thetaiotaomicron</i>	6,293,399	4712	100	44
<i>Bacteroides congonensis</i>	6,373,337	4723	103	43
<i>Chitinophaga pinensis</i>	9,127,347	7192	118	47
<i>Opitutus terrae</i>	5,957,605	4612	100	40
<i>Thermosiphon melanesiensis</i>	1,915,238	1879	108	46
<i>Chloroflexus aurantiacus</i>	5,258,541	3853	112	41
<i>Caldilinea aerophila</i>	5,144,873	4,119	121	45
<i>Roseiflexus castenholzii</i>	5,723,298	4330	115	40
<i>Gloeobacter violaceus</i>	4,659,019	4430	116	45
<i>Trichormus variabilis</i>	7,105,752	5039	114	40
<i>Nostoc punctiforme</i>	9,059,191	6087	119	45
<i>Sulfurimonas denitrificans</i>	2,201,561	2096	94	41
<i>Arcobacter butzleri</i>	2,341,251	2259	92	44
<i>Gallibacterium anatis</i>	2,694,139	2494	133	50
<i>Helicobacter acinonychis</i>	1,557,588	1612	95	42
<i>Arcobacter nitrofigilis</i>	3,192,235	3126	103	42
<i>Desulfovibrio vulgaris</i>	3,773,159	3379	127	53
<i>Gluconacetobacter diazotrophicus</i>	3,914,947	3472	143	46
<i>Caulobacter crescentus</i>	4,042,929	3886	141	49
<i>Rhodospirillum rubrum</i>	4,406,557	3791	138	47
<i>Dechloromonas aromatica</i>	4,501,104	4171	128	51
<i>Shewanella denitrificans</i>	4,545,906	3754	132	49
<i>Psychromonas ingrahamii</i>	4,559,598	3545	136	50
<i>Rhodobacter sphaeroides</i>	4,602,977	3885	142	47
<i>Geobacter bemidjiensis</i>	4,615,150	4051	127	52
<i>Aeromonas hydrophila</i>	4,744,448	4122	140	49
<i>Chromobacterium violaceum</i>	4,751,080	4407	136	53
<i>Bordetella petri</i>	5,264,383	5,035	135	46
<i>Klebsiella aerogenes</i>	5,280,350	4912	161	51
<i>Xanthomonas axonopodis</i>	5,296,525	4245	128	50
<i>Polaromonas naphthalenivorans</i>	5,366,143	4084	126	52
<i>Colwellia psychrerythraea</i>	5,373,180	4910	139	50
<i>Pseudomonas syringae</i>	6,093,698	5482	141	50
<i>Pseudomonas aeruginosa</i>	6,264,404	5571	143	53
<i>Achromobacter xylosoxidans</i>	6,813,182	6459	139	49
<i>Ralstonia eutropha/Cupriavidus necator</i>	8,480,857	6065	149	49
<i>Burkholderia gladioli</i>	8,899,459	6704	149	53
<i>Microvirga massiliensis</i>	9,172,134	7977	150	47
<i>Bradyrhizobium diazoefficiens</i>	9,105,828	8,317	150	48

<i>Sorangium cellulosum</i>	13,033,779	9384	138	54
<i>spirochaeta smaragdinae</i>	4,653,970	4219	124	56
<i>Treponema pallidum</i> DAL-1	1,139,971	1,059	76	39
<i>Treponema phagedenis</i>	3,372,116	2,930	113	52
<i>Treponema denticola</i>	2,795,521	2626	106	47
<i>Fusobacterium nucleatum</i>	2,174,500	2067	102	45
<i>Spodoptera frugiperda</i>	156,922	123	1	0
<i>AfricanSwineFeverVirus</i>	182,284	156	0	0
<i>Ambystoma tigrinum</i>	106,332	95	0	0
<i>Aedes Invertebrate iridescent virus</i>	191,100	126	0	0
<i>Marseillevirus marseillevirus T19</i>	368,454	457	2	0
<i>Bodo saltans virus</i>	1,385,869	1143	7	3
<i>Crovirus</i>	617,453	544	5	2
<i>Acanthamoeba polyphaga mimivirus</i>	1,181,549	979	8	2
<i>Tupanvirus soda lake</i>	1,439,508	1359	14	7
<i>Yasminevirus</i>	2,126,343	1624	10	5
<i>ATCV1</i>	288,047	860	1	0
<i>Ectocarpus siliculosus</i>	335,593	240	0	0
<i>Orpheovirus</i>	1,473,573	2398	3	2
<i>Cedratvirus massiliensis</i>	589,068	574	2	0
<i>Pithovirus sibericum ORFome</i>	610,033	467	1	0
<i>Amsacta moorei entomopoxvirus</i>	232,392	294	1	0
<i>Faustovirus E12</i>	466,265	492	2	0
<i>Medusavirus</i>	362,811	461	0	0
<i>Pandoravirus salinus</i>	2,473,870	2542	3	1
<i>Mollivirus sibericum</i>	651,523	523	2	0
<i>Kaumoebavirus</i>	350,731	264	1	0
<i>Pacmanvirus</i>	395,405	465	2	0
<i>Homo sapiens</i>	16,569	13	0	0
<i>Reclinomonas americana</i>	69,034	67	8	7
<i>Saccharomyces cerevisiae</i>	89,507	18	0	0
<i>Anopheles gambiae</i>	15,363	13	0	0
<i>Acanthamoeba castellanii</i>	41,591	40	1	1
<i>Pediculus humanus</i>	40,023	11	0	0
<i>Ostreococcus tauri</i>	44,237	43	0	0
<i>Ostreococcus tauri</i>	71,666	60	0	0
<i>Micromonas commoda</i>	72,585	57	0	0