

Organism	GB Access number	Group
Acytostelium_subglobosum	XP_012752692	Amoebozoa
Cavostelium_apophysatum_c1	GB XXXXX	Amoebozoa
Polysphondylium_pallidum	PPA1292846	Amoebozoa
Schizoplasmodiopsis_vulgar	GB XXXXX	Amoebozoa
Echinamoeba_exudans	GB XXXXX	Amoebozoa
Dictyotellium_discoideum	DDB0231571	Amoebozoa
Ceratiomyxa_fruticulosa	GB XXXXX	Amoebozoa
Amoeba_proteus	GB XXXXX	Amoebozoa
Arcella_vulgaris	GB XXXXX	Amoebozoa
Copromyxa_protea	GB XXXXX	Amoebozoa
Filamoeba_nolandii	GB XXXXX	Amoebozoa
Clastostelium_recurvatum	GB XXXXX	Amoebozoa
Physarum_polycephalum	GDRG01007044.1	Amoebozoa
Nolandella_sp.	GB XXXXX	Amoebozoa
Cryptodiffugia_operculata	GB XXXXX	Amoebozoa
Rhizamoeba_saxonica	GB XXXXX	Amoebozoa
Echinosteliopsis_oligospor	GB XXXXX	Amoebozoa
Vermamoeba_vermiformes	GB XXXXX	Amoebozoa
Diffugia_sp.	GB XXXXX	Amoebozoa
Vannella_robusta	GB XXXXX	Amoebozoa
Thecamonas_trahens	XP_013752890.1	Apusozoa
Blastocystis_hominis	XP_012897058.1	SAR
Blastocystis_sp.	XP_014528311.1	SAR
Hyphochytrium_catenoides	CAFC02029155.1	SAR
Pythium_vexans	KE499774.1	SAR
Phytophthora_infestans	XP_002901651.1	SAR
Phytophthora_ramorum	fgenes1_pm.C_scaffold_17000003	SAR
Saprolegnia_parasitica	XP_012207801.1	SAR
Aphanomyces_astaci	XP_009831112.1	SAR
Phytophthora_cinnamomi	LGSJ01000500.1	SAR
Aphanomyces_invadans	XP_008871148.1	SAR
Heterococcus_sp.	AXNI01004165.1	SAR

Klebsormidium_flaccidum	DF237307.1	Chlorophyta
Mesostigma_viride	GBSK01011320.1	Chlorophyta
Chlorokybus_atmophyticus	JO194492.1	Chlorophyta
Azolla_filiculoides	BTV01027769.1	Chlorophyta
Lygodium_japonicum	FX949761.1	Chlorophyta
Araucaria_cunninghami	GCKF01061597.1	Chlorophyta
Cycas_revoluta_recA2	GBJU01013794.1	Chlorophyta
Pinus_monticola	GBQX01043505.1	Chlorophyta
Amborella_trichopoda	XP_011623481.1	Chlorophyta
Zea_mays_recA1	NP_001148809.1	Chlorophyta
Zea_mays_recA2	NP_001170211.1	Chlorophyta
Zea_mays_recA3	NP_001130273.1	Chlorophyta
Zea_mays_recA4	XP_008672594.1	Chlorophyta
Populus_trichocarpa_recA1	XP_006370468.1	Chlorophyta
Populus_trichocarpa_recA2	XP_002308284.1	Chlorophyta
Populus_trichocarpa_recA3	XP_006371978.1	Chlorophyta
Populus_trichocarpa_recA4	XP_002323326.2	Chlorophyta
Populus_trichocarpa_recA5	XP_002308017.2	Chlorophyta
Arabidopsis_thaliana_RecA1	NP_565198	Chlorophyta
Arabidopsis_thaliana_RecA3	NP_179539	Chlorophyta
Arabidopsis_thaliana_RecA2	AAF04410.1	Chlorophyta
Oryza_sativa_RecA4	XP_015612195	Chlorophyta
Oryza_sativa_RecA1	BAS85420	Chlorophyta
Oryza_sativa_RecA2	EEE55988.1	Chlorophyta
Oriza_sativa_recA3	AAX94919.1	Chlorophyta
Ricinus_communis_RecA1	XP_015581329	Chlorophyta
Ricinus_communis_RecA2	XP_002514123	Chlorophyta
Physcomitrella_patens	NW_001865354.1	Chlorophyta
Arthrospira_plantensis	WP_014275106.1	Cyanobacteria
Gloeocapsa_sp.	WP_006530402.1	Cyanobacteria
Geitlerinema_sp.	WP_015170153.1	Cyanobacteria
Thermosynechococcus_elonga	WP_011057924.1	Cyanobacteria
Pleurocapsa_sp.	WP_019504184.1	Cyanobacteria

Paulinella_chromatophora_c	CP000815.1	Rhizaria
Galdieria_sulphuraria	XP_005704726.1	Rhodophyta
Cyanidioschyzon_merolae	XP_005536490	Rhodophyta
Saccharina_japonica	JXRI01000062.1	SAR
Ectocarpus_siliculosus	CBJ28124.1	SAR
Bolidomonas_sp.	GAUD01002030.1	SAR
Leptocylindrus_danicus	GAUB01012910.1	SAR
Thalassiosira_pseudonana	XP_002295563.1	SAR
Hemiaulus_sp.	GAUA01007909.1	SAR
Phaeodactylum_tricornutum	XP_002177339.1	SAR
Ostreococcus_tauri	XP_003081716	Chlorophyta
Bathycoccus_prasinus	NC_023998.1	Chlorophyta
Chlorella_sorokiana	GAPD01025776.1	Chlorophyta
Auxenochlorella_prototheco	NW_011934162.1	Chlorophyta
Tetraselmis_subcordiformis	GANN01009802.1	Chlorophyta
Chlamydomonas_reinhardtii	XP_001700975	Chlorophyta
Volvox_carteri	XP_002955087	Chlorophyta
Bryum_argentum	GCZP01036826.1	Chlorophyta
Nitella_mirabilis	GBST01050103.1	Chlorophyta
Cycas_revoluta_recA1	GBJU01013794.1	Chlorophyta
Pinus_massoniana	GAQR01008503.1	Chlorophyta
Spirogyra_pratensis	GBSM01012683.1	Chlorophyta
Nitrosomas_ureaeB	ALQ50787.1	Betaproteobacteria
Laribacter_hongkongensis	WP_012696278.1	Betaproteobacteria
Tepidiphulus_margaritifer	WP_028873951.1	Betaproteobacteria
Methylotenera_versatilis	WP_047541300.1	Betaproteobacteria
Hydrogenophaga_sp.	EWS64033.1	Betaproteobacteria
Ferrovum_myxofaciens	WP_031597444.1	Betaproteobacteria
Simplicispira_psychrophila	WP_051603261.1	Betaproteobacteria
Snodgrassella_alvi	WP_037392494.1	Betaproteobacteria
Polaromonas_sp.	WP_011485555.1	Betaproteobacteria
Aquifex_aeolicus	NP_214474	Betaproteobacteria
Agrobacterium_tumefaciensA	NP_354855	Alphaproteobacteria

Bacillus_anthraxis	YP_022663	Firmicutes
Burkholderia_malleiB	YP_102098	Betaproteobacteria
Brucella_suisA	NP_698206	Alphaproteobacteria
Clostridium_botulinum_Firm	YP_001787715.1	Firmicutes
Coxiella_burnetiiG	NP_820055	Gammaproteobacteria
Campylobacter_jejuniE	YP_002345041	Epsilonproteobacteria
Clostridium_perfringens	WP_003459804	Firmicutes
Chlamydomphila_pneumoniae	CRI33281	Chlamydiae
Chlorobium_tepidum	NP_662807	Chlorobi
Dehalococcoides_ethenogene	YP_182301	Chloroflexi
Deinococcus_radiodurans	NP_296061	Deinococcus -Thermus
Escherichia_coliG	ESA73300	Gammaproteobacteria
Francisella_tularensisG	WP_003013734	Gammaproteobacteria
Geobacter_sulfurreducensD	WP_010940821	Deltaproteobacteria
Listeria_monocytogenes	WP_003732286	Firmicutes
Rhodopirellula_baltica	EGF27088	Planctomycetes
Ralstonia_solanacearumB	WP_011000510	Betaproteobacteria
Rickettsia_typhiA	YP_067686	Alphaproteobacteria
Staphylococcus_aureus	NP_371809	Firmicutes
Streptococcus_pneumoniae	NP_346368	Firmicutes
Thermotoga_maritima	NP_229655	Thermotogae
Treponema_pallidum	NP_219129	Spirochaetes
Vibrio_choleraeG	NP_230194	Gammaproteobacteria
Wolinella_succinogenesE	NP_907645	Epsilonproteobacteria
Yersinia_pestisG	YP_002348203	Gammaproteobacteria
Rhodobacter_capsulatusA	CAA57673.1	Alphaproteobacteria
Anaplasma_centraleA	ABD34619.1	Alphaproteobacteria
Gluconobacter_oxydansA	AAA73517.1	Alphaproteobacteria
Acetobacter_pasteurianusA	BAI13443.1	Alphaproteobacteria
Sphingobium_japonicumA	BAI98115.1	Alphaproteobacteria
Endosymbiont_AcanthamoebaA	AIF81566.1	Alphaproteobacteria
Chaetoceros_affinis	GBSA01013535.1	SAR
Bacillus_Phage	YP_009218156	Phage Virus

Mycobacterium_Phage1	YP_002014584	Phage Virus
Mycobacterium_Phage2	NP_817564	Phage Virus
Oscillatoria_nigroviridis	WP_015174639	Cyanobacteria
Prochlorococcus_marinus	WP_011125865	Cyanobacteria
Staniera_cyanosphaera	WP_015194042	Cyanobacteria
Geminocystis_herdmanii	WP_026102060	Cyanobacteria
Aphanocapsa_montana	WP_026102060	Cyanobacteria
Synechococcus_elongatus	WP_011057924.1	Cyanobacteria
Phycisphaera_mikurensis	WP_014435553	Planctomycetes
Thermocrinis_ruber	WP_038531930	Aquificae
Psychrilyobacter_atlanticus	WP_028854876	Fusobacteria
Fusobacterium_nucleatum	WP_008802497	Fusobacteria
Ilyobacter_polytropus	WP_013386609	Fusobacteria
Thermocrinis_albus	WP_012992093	Aquificae
Sebaldella_termitidis	WP_049768991	Fusobacteria
Chlamydia_psittaci	WP_006343655	Chlamydiae
Thermosipho_melanesiensis	WP_012057372	Thermotogae
Fusobacterium_ulcerans	WP_005981580	Fusobacteria
Hydrogenobacter_thermophil	WP_012963430	Aquificae
Chlamydia_trachomatis	WP_009872817	Chlamydiae
Hydrogenobaculum_sp.	WP_015419933	Aquificae
Thermovibrio_ammonificans	WP_013538419	Aquificae
Leptotrichia_hofstadii	WP_026746688	Fusobacteria
Isosphaera_pallida	ADV62543	Planctomycetes
Chlorobium_chlorochromatii	WP_041466397	Chlorobi
Waddlia_chondrophila	WP_013183004	Chlamydiae
Sulfurihydrogenibium_azorense	WP_012674242	Aquificae
Blastopirellula_marina	EAQ81994	Planctomycetes
Fervidobacterium_pennivora	NC_017095.1	Thermotogae
Marinithermus_hydrothermal	NC_015387.1	Deinococcus -Thermus
Sphaerobacter_thermophilus	NC_013523.1	Chloroflexi
Thermomicrobium_roseum	NC_011959.1	Chloroflexi
Thermanaerothrix_daxensis	NZ_LGKO01000002.1	Chloroflexi

Anaerolinea_thermophila	NC_014960.1	Chloroflexi
Chloroflexus_aggregans	NC_011831.1	Chloroflexi
Roseiflexus_castenholzii	NC_009767.1	Chloroflexi
Meiothermus_ruber	NC_013946.1	Deinococcus -Thermus
Caldilinea_aerophila	NC_017079.1	Chloroflexi
Deinococcus_proteolyticus	NC_015161.1	Deinococcus -Thermus
Thermus_thermophilus	NZ_CP014141.1	Deinococcus -Thermus
Pelotomaculum_thermopropio	NC_009454.1	Firmicutes
Alkaliphilus_oremlandii	NC_009922.1	Firmicutes
Bifidobacterium_breve	NZ_AP012324.1	Actinobacteria
Amphibacillus_xylanus	NC_018704.1	Firmicutes
Geobacillus_thermoglucosid	NZ_CM001483.1	Firmicutes
Selenomonas_sputigena	NC_015437.1	Firmicutes
Trueperella_pyogenes	NZ_CP007003.1	Actinobacteria
Mycobacterium_immunogenum	WP_036338669.1	Actinobacteria
Arcobacter_anaerophilusE	WP_044419389.1	Epsilonproteobacteria
Borrelia_miyamotoi	WP_020954525.1	Spirochaetes
Sphaerochaeta_glogosa	WP_013607055.1	Spirochaetes
Geobacter_bemidjiensisD	WP_012532059.1	Deltaproteobacteria
Helicobacter_pyloriE	WP_000952104.1	Epsilonproteobacteria
Geopsychrobacter_eletrodip	WP_020677075.1	Deltaproteobacteria
Spirochaeta_bajacalifornie	WP_020613633.1	Spirochaetes
Pelobacter_seleniigenesD	WP_029915705.1	Deltaproteobacteria
Cafeteria_roenbergensis	MMETSP0942	SAR
Chlorarachnion_reptans	MMETSP0109	Rhizaria
Togula_jolla	MMETSP0224	SAR
Polarella_glacialis	MMETSP0227	SAR
Protoceratium_reticulatum	MMETSP0228	SAR
Heterosigma_akashiwo	MMETSP0292	SAR
Gloeochaete_witrockiana	MMETSP1089	Glaucophyta
Aplanochytrium_sp.	MMETSP0957	SAR
Vaucheria_litorea	MMETSP0945	SAR
Lingulodinium_polyedra	MMETSP1032	SAR

Bigelowiella_natans	MMETSP1052	Rhizaria
Dinobryon_sp.	MMETSP0019	SAR
Lotharella_oceanica	MMETSP0040	Rhizaria
Durinskia_baltica	MMETSP0116	SAR
Glenodinium_foliaceum	MMETSP0118	SAR
Kryptoperidinium_foliaceum	MMETSP0120	SAR
Azadinium_spinosum_recA1	MMETSP1036	SAR
Azadinium_spinosum_recA2	MMETSP1036	SAR
Partenskyella_glossopodia	MMETSP1318	Rhizaria
Synchroma_pusillum	MMETSP1452	SAR
Picocystis_salinarum_recA2	MMETSP0807	Chlorophyta
Picocystis_salinarum_recA1	MMETSP0807	Chlorophyta
Pycnococcus_provasolli	MMETSP1471	Chlorophyta
Stichococcus_sp.	MMETSP1473	Chlorophyta
Pyraminonas_parkeae	MMETSP0058	Chlorophyta
Helicosporidium_sp.	KDD76638	Chlorophyta
Picochlorum_sp.	MMETSP0467	Chlorophyta
Arabidopsis_thaliana_RecA4	NP_001190003.1	Chlorophyta
Ochromonas_sp.	MMETSP0005	SAR
Eucampia_antarctica	MMETSP1437	SAR
Mallomonas_sp.	MMETSP1167	SAR
Norrisiella_sphaerica	MMETSP0113	Rhizaria
Dunaliella_tertiolecta	MMETSP1126	Chlorophyta
Gymnochlora_sp.	MMETSP0110	Rhizaria
Synedropsis_recta	MMETSP1176	SAR
Mesodinium_pulex	MMETSP0467	SAR
Cand.Paracaedibacter_acant	WP_038466109	Alphaproteobacteria
Acidomonas_methanilica	WP_042058192	Alphaproteobacteria