

Table S2 List of genome assemblies of yeasts and filamentous fungi analyzed in this study

Kingdom	Subkingdom	Phylum	Class	Order	Family	#	Species	Strain	Assembly	Accession	Scaffolds	Contigs	N50	L50	Assembly level	Database	
Fungi	Dikarya	Ascomycota	Saccharomycetes	Saccharomycetales	Saccharomycetaceae and related families	1	<i>Candida glabrata</i>	CBS 138	GCA_000002545.2	ASM2545v2	14	17	1100349	5	chromosome	NCBJ Genome	
						2	<i>Kazachstania africana</i>	CBS 2517	GCA_000044781.1	KA_CBS2517	12	34	925516	5	chromosome	NCBJ Genome	
						3	<i>Kazachstania napagishi</i>	CBS 1970	GCA_000044985.1	KNA_CBS4985v1	13	95	227487	12	chromosome	NCBJ Genome	
						4	<i>Naumovomyces castellii</i>	CBS 4309	GCA_000237345.1	ASM23734v1	10	17	1245273	3	chromosome	NCBJ Genome	
						5	<i>Naumovomyces dairenensis</i>	CBS 421	GCA_000271152	ASM27115v2	11	279	109578	37	chromosome	NCBJ Genome	
						6	<i>Saccharomyces eubayanus</i>	H4 (CBS 10644)	GCA_000297275.1	Seu291.0	36	219	117287	35	chromosome	NCBJ Genome	
						7	<i>Saccharomyces cerevisiae</i>	S288C	S288C_reference_R64_2_1 (SGO)	R64_2_1 (SGO)	17	17	924311	6	complete genome	SGO	
						8	<i>Saccharomyces eubayanus</i>	FM1318	GCA_001298051.1	SE183.0	24	133	197643	17	chromosome	NCBJ Genome	
						9	<i>Saccharomyces paradoxus</i>	CBS 432	GCA_000297055.1	ASM29705v1	17	18	839512	6	chromosome	NCBJ Genome	
						10	<i>Tetrapispora blattae</i>	CBS 6284	GCA_000315915.1	ASM115915v1	10	82	286437	18	chromosome	NCBJ Genome	
						11	<i>Tetrapispora phaffii</i>	CBS 4417	GCA_000298905.1	ASM29890v1	17	105	249107	18	chromosome	NCBJ Genome	
						12	<i>Tortulapora deltoidea</i>	CBS 1146	GCA_000243375.1	ASM24337v1	8	34	539679	6	chromosome	NCBJ Genome	
						13	<i>Zygosaccharomyces bailii</i>	CLIB 213	GCA_000442885.1	ZYBA0	27	287	84072	38	scaffold	NCBJ Genome	
						14	<i>Zygosaccharomyces rouxi</i>	CBS 725	GCA_000226395.1	ASM26395v1	15	8	149542	3	chromosome	NCBJ Genome	
						15	<i>Eremothecium coryli</i>	CBS 5749	GCA_000710315.1	Eremothecium coryli	19	63	32460	9	scaffold	NCBJ Genome	
						16	<i>Eremothecium cymbalariae</i>	DBVPG 7215	GCA_000235365.1	ASM23536v1	8	9	1193613	4	chromosome	NCBJ Genome	
						17	<i>Eremothecium gossypii</i>	ATCC 10895	GCA_000910254	ASM91025v1	8	8	151940	3	complete genome	NCBJ Genome	
						18	<i>Kluyveromyces dabanuski</i>	CBS 2104	GCA_000020985.1	KLDO_01	86	86	49307	7	contig	NCBJ Genome	
						19	<i>Kluyveromyces lactis</i>	NRRL Y-1140	GCA_000002515.1	ASM2515v1	7	7	1753957	3	complete genome	NCBJ Genome	
						20	<i>Kluyveromyces marxianus</i>	NBRC 1777	GCA_001417835.1	KM1777_03	9	9	142013	4	complete genome	NCBJ Genome	
						21	<i>Lachancea dasiensis</i>	CBS 10888	GCA_000074725.1	LAD02	8	31	980707	5	chromosome	NCBJ Genome	
						22	<i>Lachancea fantastica</i> (sp. P3-2012a)	CBS 6924	GCA_000074735.1	LAF40	7	25	730885	6	chromosome	NCBJ Genome	
						23	<i>Lachancea fermentalis</i>	CBS 6772	GCA_000074765.1	LAF50	8	36	821294	6	chromosome	NCBJ Genome	
						24	<i>Lachancea kluyveri</i>	NRRL Y-12651	GCA_000149225.1	ASM14922v1	32	35	1252455	5	chromosome	NCBJ Genome	
						25	<i>Lachancea lanzarodensis</i>	CBS 12615	GCA_000938715.1	LAL40	24	34	700478	6	scaffold	NCBJ Genome	
						26	<i>Lachancea nysseii</i>	CBS 9951	GCA_000074715.1	LAN50	8	27	714595	6	chromosome	NCBJ Genome	
						27	<i>Lachancea nysseii</i>	CBS 11717	GCA_000074765.1	LAN50	8	20	1114975	4	chromosome	NCBJ Genome	
						28	<i>Lachancea nysseii</i>	CBS 11611	GCA_000074755.1	LAN50	8	37	984480	4	chromosome	NCBJ Genome	
						29	<i>Lachancea thermotolerans</i>	CBS 5340	GCA_000142055.1	ASM14205v1	8	10	1513937	4	chromosome	NCBJ Genome	
						30	<i>Hanseniaspora opuntiae</i>	AWRI 3578	GCA_00174795.1	ASM174795v1	17	66	240102	11	scaffold	NCBJ Genome	
						31	<i>Hanseniaspora osmophila</i>	AWRI 3579	GCA_001747045.1	ASM174704v1	17	899	18891	178	scaffold	NCBJ Genome	
						32	<i>Hanseniaspora uvarum</i>	AWRI 3580	GCA_001747055.1	ASM174705v1	18	44	453480	6	scaffold	NCBJ Genome	
						33	<i>Cyberindrella fabaei</i>	JCM 9601	GCA_001661405.1	CJfab1	12	53	46523	3	scaffold	NCBJ Genome	
						34	<i>Cyberindrella jadinii</i>	NRRL Y-1542	GCA_001661405.1	CJfab1	18	36	925516	5	chromosome	NCBJ Genome	
						35	<i>Wickerhamomyces anomalus</i>	ATCC 10573	GCA_000020485.1	WIC02	46	222	185533	23	scaffold	NCBJ Genome	
						36	<i>Saccharomycopsis kluyveri</i>	NRRL Y-1565.1	GCA_000159155.1	KPH12	8	242	120081	36	complete genome	NCBJ Genome	
						37	<i>Saccharomycopsis malvarum</i>	JCM 7820	GCA_001599215.1	JCM_159921v1	44	229	150130	23	scaffold	NCBJ Genome	
						38	<i>Ascoidea asiatica</i>	JCM 7803	GCA_001600985.1	JCM_160098v1	71	254	136442	24	scaffold	NCBJ Genome	
						39	<i>Ascoidea rubescens</i>	JCM 1469	GCA_001661145.1	JCM_1661145v1	63	325	671347	33	scaffold	NCBJ Genome	
						40	<i>Ballevelevia insospora</i>	NRRL Y-12698	GCA_001661135.1	Bale01	49	211	188400	25	scaffold	NCBJ Genome	
						41	<i>Candida africana</i>	SC5314	GCA_000129653.1	Caf01	8	36	925516	5	chromosome	NCBJ Genome	
						42	<i>Candida catenophila</i>	JCM 9396	GCA_001599235.1	JCM_159923v1	10	26	765613	12	scaffold	NCBJ Genome	
						43	<i>Candida dubliniensis</i>	CD36	GCA_000020945.1	ASM2094v1	8	8	2267510	3	complete genome	NCBJ Genome	
						44	<i>Candida orthopositiva</i>	CG-99-125	GCA_000159155.1	ASM15915v1	8	242	120081	36	complete genome	NCBJ Genome	
						45	<i>Candida parapsilosis</i>	CDC317	GCA_000152765.1	ASM15276v1	9	9	2091626	3	scaffold	NCBJ Genome	
						46	<i>Candida tarzavensis</i>	NRRL Y-17324	GCA_001661145.1	Caf01	16	249	189324	21	scaffold	NCBJ Genome	
						47	<i>Candida tenuis</i>	ATCC 10573	GCA_000020485.1	WIC02	25	74	925516	12	scaffold	NCBJ Genome	
						48	<i>Candida tropicalis</i>	MYA-3404	GCA_000006335.1	ASM6335v1	24	128	221103	21	scaffold	NCBJ Genome	
						49	<i>Debaryomyces hansenii</i>	CBS 767	GCA_000006445.2	ASM6445v2	8	15	993818	5	chromosome	NCBJ Genome	
						50	<i>Lodderomyces elongisporus</i>	NRRL YB-4239	GCA_000149855.1	ASM14985v1	28	145	261145	20	scaffold	NCBJ Genome	
						51	<i>Meyerozyma caribbica</i>	MG20W	GCA_000752055.1	ASM75205v1	9	9	1673638	3	contig	NCBJ Genome	
						52	<i>Meyerozyma guilliermondii</i>	ATCC 6260	GCA_000149425.1	ASM14942v1	9	71	313225	12	scaffold	NCBJ Genome	
						53	<i>Mileozyma aculeata</i>	JCM 10732	GCA_001600975.1	JCM_160097v1	10	29	577428	6	scaffold	NCBJ Genome	
						54	<i>Phenomyces haplophilus</i>	JCM 1435	GCA_001599895.1	JCM_159989v1	9	29	598910	8	scaffold	NCBJ Genome	
						55	<i>Scheffersomyces lignosus</i>	JCM 9637	GCA_001599895.1	JCM_9637v1	19	73	616226	8	scaffold	NCBJ Genome	
						56	<i>Scheffersomyces stipitis</i>	CBS 9554	GCA_000020915.1	ASM2091v1	8	9	1893041	4	chromosome	NCBJ Genome	
						57	<i>Spaethopora arborariae</i>	UFMG-19.1A	GCA_000497715.1	Spa01A.0	41	381	63812	59	scaffold	NCBJ Genome	
						58	<i>Spaethopora passalidarum</i>	NRRL Y-27207	GCA_000224495.1	Spaethopora passalidarum v2.0	8	26	145521	4	scaffold	NCBJ Genome	
						59	<i>Candida intermedia</i>	CBS 141442	GCA_000103115.1	CBS_141442v1	8	10	195597	4	chromosome	NCBJ Genome	
						60	<i>Clavipora lusitanae</i>	ATCC 42720	GCA_000003835.1	ASM3835v1	8	8	266609	15	scaffold	NCBJ Genome	
						61	<i>Metschnikowia bicuspidata</i>	NRRL YB-4993	GCA_001664035.1	Met01	48	582	62344	72	scaffold	NCBJ Genome	
						62	<i>Metschnikowia fructicola</i>	277	GCA_000317355.2	ASM17355v2	93	93	957836	9	contig	NCBJ Genome	
						63	<i>Hypophypha turboni</i>	NRRL Y-1593	GCA_001661395.1	Hyt01	27	243	114103	34	scaffold	NCBJ Genome	
						64	<i>Hypophypha homilota</i>	JCM 1507	GCA_001599895.1	JCM_159989v1	8	32	765613	6	scaffold	NCBJ Genome	
						65	<i>Wickerhamomyces fructicola</i>	JCM 1501	GCA_001599155.1	JCM_159915v1	20	108	312802	15	complete genome	NCBJ Genome	
						66	<i>Brettanomyces anomalus</i>	CBS 7654	GCA_001754015.1	ASM175401v1	28	261	123727	27	scaffold	NCBJ Genome	
						67	<i>Brettanomyces bruxellensis</i>	CBS 2499	GCA_000340765.1	Debken bruxellensis CBS 2499 v2.0	63	887	30955	105	scaffold	NCBJ Genome	
						68	<i>Brettanomyces naardensis</i>	CBS 1540	GCA_001753995.1	Caf01	76	104	265666	10	scaffold	NCBJ Genome	
						69	<i>Candida arabinoglucosylans</i>	NRRL YB-2248	GCA_001661425.1	Caf01	62	701	101778	39	scaffold	NCBJ Genome	
						70	<i>Candida boidinii</i>	JCM 9604	GCA_001599335.1	JCM_9604v1	32	144	512751	12	scaffold	NCBJ Genome	
						71	<i>Candida succinella</i>	JCM 1448	GCA_001599435.1	JCM_159943v1	64	549	54473	8	chromosome	NCBJ Genome	
						72	<i>Komagataella phaffii</i>	CBS 7435	GCA_000223665.1	PcPaf_May03.1	5	17	1320048	3	chromosome	NCBJ Genome	
						73	<i>Opisthokonta methanococcus</i>	JCM 10340	GCA_001600755.1	JCM_160075v1	32	168	223418	23	scaffold	NCBJ Genome	
						74	<i>Opisthokonta methanococcus</i>	DL-1	GCA_001600755.1	JCM_160075v1	10	10	1273462	4	contig	NCBJ Genome	
						75	<i>Opisthokonta methanococcus</i>	NYC-495-104.1	GCA_001664045.1	Haw02	7	7	1702532	4	contig	NCBJ Genome	
						76	<i>Pichia methanococcus</i>	NRRL Y-2028	GCA_001661125.1	Haw02	16	16	472029	9	contig	NCBJ Genome	
						77	<i>Nakazawaia pelita</i>	JCM 8925	GCA_001599355.1	JCM_8925v1	11	34	645860	6	scaffold	NCBJ Genome	
						78	<i>Amoromyces kashinagata</i>	JCM 15019	GCA_001599075.1	JCM_15019v1	23	59	41899	8	scaffold	NCBJ Genome	
						79	<i>Candida sorboliviana</i>	CBS 15358	GCA_001599115.1	JCM_159911v1	17	1184	177	1184	17	scaffold	NCBJ Genome
						80	<i>Kuraishia capsulata</i>	CBS 1993	GCA_000576695.1	ALN_PRJ8447_v1	7	73	370515	10	scaffold	NCBJ Genome	
						81	<i>Sporophyalomyces quercum</i>	JCM 1486	GCA_001599895.1	JCM_159989v1	15	37	85576	6	scaffold	NCBJ Genome	
						82	<i>Yarrowia delmariae</i>	JCM 1484	GCA_001600975.1	JCM_160097v1	174	264734	264734	1	contig	NCBJ Genome	
						83	<i>Yarrowia kerlingensis</i>	JCM 1484	GCA_001600915.1	JCM_1484v1	41	180	288949	24	scaffold	NCBJ Genome	
						84	<i>Yarrowia lipolytica</i>	CLIB 89 (W29)	GCA_001734385.1	ASM173438v1	7	7	282493	3	complete genome	NCBJ Genome	
						85	<i>Schizosaccharomyces lignosus</i>	CBS 1034-2	GCA_001640325.1	ASM164032v1	8	8	45942	2	contig	NCBJ Genome	
						86	<i>Wickerhamomyces demoreae</i>	JCM 9478	GCA_001599275.1	JCM_9478v1	5	50	440821	8	scaffold	NCBJ Genome	
						87	<i>Tortipora caryophylli</i>	NRRL Y-17396	GCA_001681475.1	Caf01	6	64	57105	6	scaffold	NCBJ Genome	
						88	<i>Candida glabrata</i>	NRRL Y-28640	GCA_001001415.1	ASM100141v1	135	135	100141	2	contig	NCBJ Genome	
						89	<i>Nakazawaia fulvescens</i>	DSM 958	GCA_001661315.1	Naf01	20	200	20047	21	scaffold	NCBJ Genome	
						90	<i>Stametsia biformis</i>	JCM 9596	GCA_001599315.1	JCM_9596v1	16	63	96726	6	scaffold	NCBJ Genome	
						91	<i>Stametsia biformis</i>	B05-19	GCA_000018245.1	ASM18245v1	18	261	18245	1	complete genome	NCBJ Genome	
						92	<i>Leotiomyces</i>	Helotales	GCA_000018245.1	VDOG_R024.0.0	8	8	416933	4	complete genome	NCBJ Genome	
						93	<i>Sordariomycetes</i>	Glomerellales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	
						94	<i>Sordariomycetes</i>	Sordariales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	
						95	<i>Sordariomycetes</i>	Dothideales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	
						96	<i>Sordariomycetes</i>	Dothideales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	
						97	<i>Sordariomycetes</i>	Dothideales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	
						98	<i>Sordariomycetes</i>	Dothideales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	
						99	<i>Sordariomycetes</i>	Dothideales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	
						100	<i>Sordariomycetes</i>	Dothideales	GCA_000018245.1	NC-12	21	412	66509	21	scaffold	NCBJ Genome	