

**Supplementary Table S1. Comparison analysis of genome features of strain DC2 and 75 available *Talaromyces* strain in NCBI**

No	Scientific name	Strains	Genome size	Assembly level	Data resource
1	<i>Talaromyces piceae</i>	9-3	26,564,319	Scaffold	GCA_001657655.1
2	<i>Talaromyces borbonicus</i>	SV-2017a	27,050,413	Scaffold	GCA_002916415.1
3	<i>Talaromyces marneffe</i>	WCHTM105701	27,182,151	Contig	GCA_006111635.1
4	<i>Talaromyces marneffe</i>	PUMCH_TM1901	27,617,670	Scaffold	GCA_011320185.1
5	<i>Talaromyces</i> sp. P2101	PF2101	27,704,390	Scaffold	GCA_023626015.1
6	<i>Talaromyces funiculosus</i>	PF3603	27,934,616	Scaffold	GCA_023623875.1
7	<i>Talaromyces funiculosus</i>	D2P3	28,135,311	Scaffold	GCA_023623855.1
8	<i>Talaromyces marneffe</i>	11CN-20-091	28,198,338	Complete	GCF_009556855.1
9	<i>Talaromyces marneffe</i>	11CN-03-130	28,216,733	Chromosome	GCA_009650675.1
10	<i>Talaromyces marneffe</i>	TM4	28,307,147	Complete	GCA_003971505.1
11	<i>Talaromyces marneffe</i>	GZ8H79	28,376,234	Contig	GCA_013122295.1
12	<i>Talaromyces funiculosus</i>	R1404	28,385,195	Scaffold	GCA_023623975.1
13	<i>Talaromyces funiculosus</i>	X33	28,488,493	Complete	GCA_004299765.1
14	<i>Talaromyces funiculosus</i>	PK3801	28,528,190	Scaffold	GCA_023624025.1
15	<i>Talaromyces marneffe</i> ATCC 18224	ATCC 18224	28,643,865	Scaffold	GCF_000001985.1
16	<i>Talaromyces funiculosus</i>	D2B1	28,724,527	Scaffold	GCA_025768105.1
17	<i>Talaromyces funiculosus</i>	R1212	28,858,126	Scaffold	GCA_023623845.1
18	<i>Talaromyces</i> sp. PT2101	PF3502	28,879,243	Scaffold	GCA_023626035.1
19	<i>Talaromyces marneffe</i> PM1	PM1	28,887,485	Contig	GCA_000227055.2
20	<i>Talaromyces marneffe</i> PM1	PM1	29,022,615	Contig	GCA_000750115.2
21	<i>Talaromyces funiculosus</i>	D1B1	29,039,825	Scaffold	GCA_023623995.1
22	<i>Talaromyces purpureogenus</i>	Q2	29,077,759	Contig	GCA_019022425.1
23	<i>Talaromyces funiculosus</i>	RG13M1	29,154,027	Scaffold	GCA_023623825.1
24	<i>Talaromyces</i> sp. PYS2103	P2101	29,277,153	Scaffold	GCA_023625975.1
25	<i>Talaromyces</i> sp. PH2104	PT2101	29,383,702	Scaffold	GCA_023625955.1
26	<i>Talaromyces</i> sp. F3606	PYS2103	29,457,564	Scaffold	GCA_023625895.1
27	<i>Talaromyces funiculosus</i>	R2203A	29,504,766	Scaffold	GCA_023623985.1
28	<i>Talaromyces ruber</i>	FKI-L3-BK-DAB3	30,034,193	Scaffold	GCA_022813215.1
29	<i>Talaromyces atroseus</i>	IBT 11181	30,858,562	Scaffold	GCF_001907595.1
30	<i>Talaromyces thailandensis</i>	OC-R06-P5	31,813,847	Scaffold	GCA_019828575.1
31	<i>Talaromyces trachyspermus</i>	4014	32,038,095	Contig	GCA_020137715.1
32	<i>Talaromyces</i> sp. PL2406	B14P1	32,900,204	Scaffold	GCA_023626215.1
33	<i>Talaromyces</i> sp. PT3601	M1327	33,633,690	Scaffold	GCA_023626395.1
34	<i>Talaromyces</i> sp. R2412	PX1902	33,681,611	Scaffold	GCA_023626135.1
35	<i>Talaromyces amestolkiae</i>	CIB	33,721,883	Scaffold	GCF_001896365.1
36	<i>Talaromyces amestolkiae</i>	X1601	33,824,912	Scaffold	GCA_023623795.1
37	<i>Talaromyces</i> sp. PF2101	X2403	33,878,408	Scaffold	GCA_023626055.1
38	<i>Talaromyces amestolkiae</i>	G173	33,972,799	Contig	GCA_027569865.1
39	<i>Talaromyces</i> sp. R2405	R2412	34,240,689	Scaffold	GCA_023626155.1
40	<i>Talaromyces</i> sp. PX2406	PL2406	34,271,254	Scaffold	GCA_023626115.1
41	<i>Talaromyces</i> sp. B14P1	PYS2902	34,461,311	Scaffold	GCA_023626195.1
42	<i>Talaromyces stoll</i>	CLY-6	34,462,933	Scaffold	GCA_014065225.1
43	<b><i>Talaromyces radicus</i></b>	<b>DC2</b>	<b>34,575,287</b>	<b>Contig</b>	<b>This study</b>
44	<i>Talaromyces</i> sp. PX2802	PF30-10	34,594,379	Scaffold	GCA_023626255.1

45	<i>Talaromyces</i> sp. PF3502	PM2405	34,671,233	Scaffold	GCA_023625995.1
46	<i>Talaromyces</i> sp. PF30-1C	PF30-5	34,714,567	Scaffold	GCA_023626275.1
47	<i>Talaromyces islandicus</i>	WF-38-12	34,715,840	Scaffold	GCA_000985935.1
48	<i>Talaromyces</i> sp. PF30-10	PF30-1C	34,746,589	Scaffold	GCA_023626295.1
49	<i>Talaromyces</i> sp. PG4302	PT3601	34,770,149	Scaffold	GCA_023626335.1
50	<i>Talaromyces pinophilus</i>	PSF-12(1)	34,770,673	Contig	GCA_003316675.1
51	<i>Talaromyces</i> sp. PYS2902	PF30-1D	34,806,200	Scaffold	GCA_023626235.1
52	<i>Talaromyces</i> sp. PF30-1D	PG4302	34,879,448	Scaffold	GCA_023626315.1
53	<i>Talaromyces</i> sp. PX1902	PX2802	35,032,352	Scaffold	GCA_023626175.1
54	<i>Talaromyces</i> sp. X2403	PX2406	35,045,590	Scaffold	GCA_023626095.1
55	<i>Talaromyces</i> sp. PM2405	R2405	35,331,725	Scaffold	GCA_023626075.1
56	<i>Talaromyces</i> sp. PF30-5	S1602	35,401,712	Scaffold	GCA_023626375.1
57	<i>Talaromyces liani</i>	FKII-L2-CM-P1	35,494,196	Scaffold	GCA_022814625.1
58	<i>Talaromyces liani</i>	FKII-L2-CM-DRAB3	35,499,968	Scaffold	GCA_022814505.1
59	<i>Talaromyces stipitatus</i> ATCC 10500	ATCC 10500	35,685,443	Scaffold	GCF_000003125.1
60	<i>Talaromyces rugulosus</i>	W13939	35,758,560	Complete	GCF_013368755.1
61	<i>Talaromyces adpressus</i>	CBS 142503	36,107,696	Scaffold	GCA_002775195.1
62	<i>Talaromyces pinophilus</i>	AR155	36,366,659	Scaffold	GCA_011392495.1
63	<i>Talaromyces pinophilus</i>	Y-94	36,402,801	Scaffold	GCA_000829775.1
64	<i>Talaromyces pinophilus</i>	1-95	36,480,443	Complete	GCA_001571465.2
65	<i>Talaromyces pinophilus</i>	J7Y3	36,811,154	Scaffold	GCA_023623735.1
66	<i>Talaromyces pinophilus</i>	M8004A	37,375,402	Scaffold	GCA_023623785.1
67	<i>Talaromyces pinophilus</i>	P8041	37,439,112	Scaffold	GCA_023623755.1
68	<i>Talaromyces pinophilus</i>	NRRL 3647	37,575,941	Contig	GCA_027569565.1
69	<i>Talaromyces pinophilus</i>	NRRL 3503	37,579,131	Contig	GCA_027569545.1
70	<i>Talaromyces proteolyticus</i>	PMI_201	37,611,490	Contig	GCF_021365285.1
71	<i>Talaromyces verruculosus</i>	TS63-9	37,629,238	Scaffold	GCA_001305275.1
72	<i>Talaromyces albobiverticillius</i>	Tp-2	38,354,882	Contig	GCA_023721895.2
73	<i>Talaromyces pinophilus</i>	NA01	38,535,829	Contig	GCA_009805475.2
74	<i>Talaromyces wortmannii</i>	LMB-HP14	38,588,669	Scaffold	GCA_001939245.1
75	<i>Talaromyces purpureogenus</i>	MYA-38	38,853,631	Scaffold	GCA_001270325.1
76	<i>Talaromyces nanjingensis</i>	JP-NJ4	42,526,372	Contig	GCA_031010415.1