

**Supplementary Table 1.** List of genomes used in the analysis.

<b>Species</b>	<b>Strain</b>	<b>Genbank accession number</b>
<i>Ashbya aceri</i>	FM-2008	GCA_000412225.2
<i>Candida albicans</i>	SC5314	CGD version A22-s07-m01-r125
<i>Candida bracarensis</i>	CBS 10154	GCA_001077315.1
<i>Candida castellii</i>	CBS 4332	GCA_001046935.1
<i>Candida glabrata</i>	ATCC 2001	GCA_010111755.1
<i>Candida nivariensis</i>	CBS 9983	GCA_001046915.1
<i>Debaryomyces hansenii</i>	CBS767	GCA_000006445.2
<i>Eremothecium coryli</i>	CBS 5749	GCA_000710315.1
<i>Eremothecium cymbalariae</i>	DBVPG 7215	GCA_000235365.1
<i>Eremothecium gossypii</i>	ATCC 10895	GCA_000091025.4
<i>Eremothecium sincaudum</i>	ATCC 58844	GCA_001548555.1
<i>Hanseniaspora osmophila</i>	NRRL Y-1613	GCA_003707715.1
<i>Hanseniaspora uvarum</i>	DSM 2768	GCA_000968475.1
<i>Kazachstania aerobia</i>	NRRL Y-27976	GCA_003708495.1
<i>Kazachstania africana</i>	CBS 2517	GCA_000304475.1
<i>Kazachstania bromeliacearum</i>	NRRL Y-48836	GCA_003708535.2
<i>Kazachstania intestinalis</i>	NRRL Y-48847	GCA_003708845.2
<i>Kazachstania kunashirensis</i>	NRRL Y-27209	GCA_003708465.1
<i>Kazachstania martiniae</i>	NRRL Y-409	GCA_003708925.2
<i>Kazachstania naganishii</i>	CBS 8797	GCA_000348985.1
<i>Kazachstania rosinii</i>	NRRL Y-17919	GCA_003708425.2
<i>Kazachstania saulgeensis</i>	CLIB1764	GCA_900180425.1
<i>Kazachstania servazzii</i>	SRCM 102023	GCA_002214935.1
<i>Kazachstania siamensis</i>	NRRL Y-48842	GCA_003708905.2
<i>Kazachstania solicola</i>	NRRL Y-27207	GCA_003708835.2
<i>Kazachstania spencerorum</i>	NRRL Y-17920	GCA_003708825.2
<i>Kazachstania taianensis</i>	NRRL Y-48846	GCA_003708865.1
<i>Kazachstania telluris</i>	UCD 400	GCA_009394695.1
<i>Kazachstania transvaalensis</i>	NRRL Y-17245	GCA_003708445.2
<i>Kazachstania turicensis</i>	NRRL Y-48834	GCA_003708545.1
<i>Kazachstania unispora</i>	NRRL Y-1556	GCA_003708525.2
<i>Kazachstania viticola</i>	NRRL Y-27206	GCA_003708455.1
<i>Kazachstania yakushimaensis</i>	NRRL Y-48837	GCA_003709265.1
<i>Kluyveromyces aestuarii</i>	NRRL YB-4510	GCA_003707555.1
<i>Kluyveromyces dobzhanskii</i>	NRRL Y-1974	GCA_003705805.2
<i>Kluyveromyces lactis</i>	NRRL Y-1140	GCA_000002515.1
<i>Kluyveromyces marxianus</i>	NBRC 1777	GCA_001417835.1
<i>Kluyveromyces nonfermentans</i>	NRRL Y-27343	GCA_003670155.1
<i>Kluyveromyces wickerhamii</i>	UCD 54-210	GCA_000179415.1
<i>Komagataella pastoris</i>	ATCC 28485	GCA_001708105.1

<i>Lachancea dasiensis</i>	CBS 10888	GCA_900074725.1
<i>Lachancea fermentati</i>	CBS 6772	GCA_900074765.1
<i>Lachancea kluyveri</i>	NRRL Y-12651	GCA_000149225.1
<i>Lachancea lanzarotensis</i>	CBS 12615	GCA_000938715.1
<i>Lachancea meyersii</i>	CBS 8951	GCA_900074715.1
<i>Lachancea mirantina</i>	CBS 11717	GCA_900074745.1
<i>Lachancea nothofagi</i>	CBS 11611	GCA_900074755.1
<i>Lachancea quebecensis</i>	CBS 14088	GCA_002900925.1
<i>Lachancea thermotolerans</i>	CBS 6340	GCA_000142805.1
<i>Lachancea waltii</i>	NCYC 2644	GCA_000167115.1
<i>Metschnikowia bicuspidata</i> var. <i>bicuspidata</i>	NRRL YB-4993	GCA_001664035.1
<i>Metschnikowia pulcherrima</i>	Bath1	GCA_009932455.1
<i>Metschnikowia reukaufii</i>	MR1	GCA_003401635.1
<i>Nakaseomyces bacillisporus</i>	CBS 7720	GCA_001046975.1
<i>Nakaseomyces delphensis</i>	CBS 2170	GCA_001039675.1
<i>Naumovozyma castellii</i>	CBS 4309	GCA_000237345.1
<i>Naumovozyma dairenensis</i>	CBS 421	GCA_000227115.2
<i>Pichia kudriavzevii</i>	CBS5147	GCA_003054405.1
<i>Pichia membranifaciens</i>	NRRL Y-2026	GCA_001661235.1
<i>Saccharomyces cerevisiae</i>	S288C	SGD version: R64-2-1_20150113
<i>Saccharomyces arboricola</i>	H-6	GCA_000292725.1
<i>Saccharomyces eubayanus</i>	CBS 12357	GCA_003327605.1
<i>Saccharomyces jurei</i>	NCYC 3947	GCA_900290405.1
<i>Saccharomyces kudriavzevii</i>	CR 85	GCA_003327635.1
<i>Saccharomyces mikatae</i>	IFO 1815	GCA_000166975.1
<i>Saccharomyces paradoxus</i>	CBS 432	GCA_002079055.1
<i>Saccharomyces</i> sp. ' <i>boulardii</i> '	biocodex	GCA_001298375.2
<i>Saccharomyces uvarum</i>	U3	GCA_002242645.1
<i>Schizosaccharomyces japonicus</i>	yFS275	GCA_000149845.2
<i>Schizosaccharomyces pombe</i>	972h-	GCA_000002945.2
<i>Tetrapisispora blattae</i>	CBS 6284	GCA_000315915.1
<i>Tetrapisispora fleetii</i>	NRRL Y-27350	GCA_003707605.1
<i>Tetrapisispora iriomotensis</i>	NRRL Y-27309	GCA_003705975.1
<i>Tetrapisispora namnaoensis</i>	NRRL Y-27982	GCA_003705985.1
<i>Tetrapisispora phaffii</i>	CBS 4417	GCA_000236905.1
<i>Torulaspora delbrueckii</i>	COFT1	GCA_003013175.1
<i>Torulaspora franciscaae</i>	NRRL Y-17532	GCA_003705175.2
<i>Torulaspora maleeae</i>	CBS 10694	GCA_003708055.2
<i>Torulaspora microellipsoides</i>	NRRL Y-1549	GCA_003707085.1
<i>Torulaspora pretoriensis</i>	CBS 2187	GCA_012851205.1
<i>Vanderwaltozyma polyspora</i>	DSM 70294	GCA_000150035.1
<i>Wickerhamomyces anomalus</i>	NRRL Y-366-8	GCA_001661255.1

<i>Yarrowia lipolytica</i>	DSM 3286	GCA_014490615.1
<i>Yueomyces sinensis</i>	NRRL Y-17406	GCA_003707995.1
<i>Zygosaccharomyces bailii</i>	IST 302	GCA_900162805.1
<i>Zygosaccharomyces bisporus</i>	NRRL Y-12626	GCA_003707595.1
<i>Zygosaccharomyces kombuchaensis</i>	NRRL YB-4811	GCA_003705955.1
<i>Zygosaccharomyces mellis</i>	Ca-7	GCA_005406105.1
<i>Zygosaccharomyces rouxii</i>	CBS 732	GCA_000026365.1
<i>Zygorulasporea florentina</i>	NRRL Y-1560	GCA_003671575.2
<i>Zygorulasporea mrakii</i>	NRRL Y-12654	GCA_003671565.1

**Supplementary Table 2.** List of strains used in labelling and detection of cell wall proteins

Species	Strain designation		Source
	ACBR	CBS	
<i>Blastobotrys adenivorans</i>	HA1092 <sup>T</sup>	CBS8244 <sup>T</sup>	Soil, Netherlands, Wageningen
<i>Debaryomyces hansenii</i>	HA574	-	Excrement of birds in a zoo
<i>D. vindobonensis</i>	HA1076 <sup>T</sup>	CBS11666 <sup>T</sup>	Wastewater treatment plant, Austria, Vienna
<i>Hanseniaspora osmophila</i>	HA1225	CBS314 <sup>T</sup>	Muscatel grape, Russia, Crimea
<i>H. uvarum</i>	HA1216 <sup>T</sup>		
<i>Kluyveromyces lactis</i>	HA118	CBS2359	creamery, USA
<i>K. marxianus</i>	HA731 <sup>T</sup>	CBS834 <sup>T</sup>	kefyr grain, Netherlands
<i>Metschnikowia biscupidata</i>	HA672 <sup>NT</sup>	CBS5575 <sup>NT</sup>	sporocysts of <i>Diplostomum flexicaudum</i> (trematode), in digestive gland of snail
<i>M. pulcherrima</i>	HA665 <sup>T</sup>	CBS5833 <sup>T</sup>	Berries of <i>Vitis labrusca</i> ; USA, California
<i>M. reukaufii</i>	HA666 <sup>T</sup>	CBS 5834 <sup>T</sup>	Flower of <i>Epilobium angustifolium</i> , Canada
<i>Pichia kudriavzevii</i>	HA892 <sup>T</sup>	CBS5147 <sup>T</sup>	fruit juice
<i>P. membranifaciens</i>	HA895 <sup>T</sup>	CBS107 <sup>T</sup>	unknown
<i>S. cerevisiae</i>	HA2779	-	BY4741, derivative of S288C strain
<i>S. cerevisiae v. boulardii</i>	HA282	CBS5926	Fruit, Indochina
<i>S. paradoxus</i>	HA390	CBS406	Exudate of <i>Quercus</i> sp., Netherlands
<i>Schizosaccharomyces japonicus</i>	HA116 <sup>T</sup>	CBS103 <sup>T</sup>	concentrated grape juice, USA
<i>Sch.pombe</i>	HA983 <sup>T</sup>	CBS357 <sup>T</sup>	cane-sugar molasses, for rum making, Jamaica
<i>Torulasporea delbrueckii</i>	HA688 <sup>NT</sup>	CBS1146 <sup>NT</sup>	unknown
<i>Yarrowia lipolytica</i>	HA990 <sup>T</sup>	CBS6124 <sup>T</sup>	maize processing plant; USA, Illinois
<i>Y. lipolytica</i>	HA826	-	surface ripened soft cheese, Austria

T, type strain; NT, neotype strain; ACBR, Austrian Center of Biological Resources and Applied Mycology, Muthgasse 11, 1190 Vienna, Austria; CBS, CBS-KNAW Fungal Biodiversity Centre, Uppsalalaan 8, 3584 CT Utrecht, The Netherlands