

Supplementary 1: Sequence used in the pan-genome analysis.

	A	B	C	D	E	F
1	Assembly Accession	Assembly Name	Organism Name	Organism Intraspecific Names Strain	Assembly Level	Assembly Release Date
2	GCA_002688605.1	ASM268860v1	<i>Priestia aryabhatai</i>	K13	Complete Genome	10/24/2017
3	GCA_041902395.1	ASM4190239v1	<i>Priestia aryabhatai</i>	YB01	Complete Genome	9/12/2024
4	GCA_028994175.1	ASM2899417v1	<i>Priestia aryabhatai</i>	G5MAi6	Complete Genome	3/5/2023
5	GCA_037081845.1	HJ_Priestia_T3_Nov o02_40Flow9	<i>Priestia aryabhatai</i>	HJ.T3	Complete Genome	3/9/2024
6	GCA_017743055.1	ASM1774305v1	<i>Priestia aryabhatai</i>	LAD	Complete Genome	4/4/2021
7	GCA_030406185.1	ASM3040618v1	<i>Priestia aryabhatai</i>	AYG1023	Complete Genome	7/4/2023
8	GCA_041545735.1	ASM4154573v1	<i>Priestia aryabhatai</i>	JSH01	Complete Genome	8/29/2024
9	GCA_028891465.1	ASM2889146v1	<i>Priestia aryabhatai</i>	G5.MM8	Complete Genome	3/1/2023
10	GCA_007106705.1	ASM710670v1	<i>Priestia aryabhatai</i>	KNU10	Complete Genome	7/18/2019
11	GCA_030486505.1	ASM3048650v1	<i>Priestia aryabhatai</i>	S2	Complete Genome	7/16/2023
12	GCA_019968665.1	ASM1996866v1	<i>Priestia aryabhatai</i>	NM1_A2	Complete Genome	9/14/2021
13	GCA_022811825.1	ASM2281182v1	<i>Priestia aryabhatai</i>	B2	Complete Genome	4/4/2022
14	GCA_043522765.1	ASM4352276v1	<i>Priestia aryabhatai</i>	SGAir0179	Complete Genome	10/21/2024
15	GCA_030374065.1	ASM3037406v1	<i>Priestia aryabhatai</i>	XT37	Complete Genome	6/29/2023
16	GCA_028751835.1	ASM2875183v1	<i>Priestia aryabhatai</i>	KNUC0118	Complete Genome	2/21/2023
17	GCA_036785815.1	kcgeb_s4	<i>Priestia aryabhatai</i>	kcgeb_S4	Complete Genome	2/22/2024
18	GCA_018881345.1	ASM1888134v1	<i>Priestia aryabhatai</i>	KNUC0119	Contig	6/14/2021
19	GCA_029857305.1	ASM2985730v1	<i>Priestia aryabhatai</i>	PRO104	Contig	4/24/2023
20	GCA_024434365.1	ASM2443436v1	<i>Priestia aryabhatai</i>	HCL2022-2	Contig	7/25/2022
21	GCA_029857215.1	ASM2985721v1	<i>Priestia aryabhatai</i>	PRO119	Contig	4/24/2023
22	GCA_029857275.1	ASM2985727v1	<i>Priestia aryabhatai</i>	PRO113	Contig	4/24/2023
23	GCA_028550455.1	ASM2855045v1	<i>Priestia aryabhatai</i>	SRCM124807	Contig	2/7/2023
24	GCA_039631325.1	ASM3963132v1	<i>Priestia aryabhatai</i>	C4-10	Contig	5/13/2024
25	GCA_013372535.1	ASM1337253v1	<i>Priestia aryabhatai</i>	FJ-6	Contig	6/24/2020
26	GCA_020171825.1	ASM2017182v1	<i>Priestia aryabhatai</i>	AcN21-4	Contig	9/28/2021
27	GCA_032646225.1	ASM3264622v1	<i>Priestia aryabhatai</i>	TL01-2	Contig	10/13/2023
28	GCA_041451555.1	ASM4145155v1	<i>Priestia aryabhatai</i>	OP	Contig	8/25/2024
29	GCA_020524855.1	ASM2052485v1	<i>Priestia aryabhatai</i>	SaN21-11	Contig	10/18/2021
30	GCA_015845475.1	ASM1584547v1	<i>Priestia aryabhatai</i>	G25-109	Contig	12/8/2020
31	GCA_019748735.1	ASM1974873v1	<i>Priestia aryabhatai</i>	I1-P1	Contig	8/24/2021
32	GCA_031844165.1	ASM3184416v1	<i>Priestia aryabhatai</i>	PD52	Contig	9/22/2023
33	GCA_031844185.1	ASM3184418v1	<i>Priestia aryabhatai</i>	PD51	Contig	9/22/2023
34	GCA_030803675.1	ASM3080367v1	<i>Priestia aryabhatai</i>	3820	Contig	8/18/2023
35	GCA_023712365.1	ASM2371236v1	<i>Priestia aryabhatai</i>	P107	Contig	6/13/2022
36	GCA_023715685.1	ASM2371568v1	<i>Priestia aryabhatai</i>	MER 145	Contig	6/13/2022
37	GCA_020524445.1	ASM2052444v1	<i>Priestia aryabhatai</i>	EaNO-22	Contig	10/18/2021
38	GCA_023713865.1	ASM2371386v1	<i>Priestia aryabhatai</i>	MER 153	Contig	6/13/2022
39	GCA_023714505.1	ASM2371450v1	<i>Priestia aryabhatai</i>	KSC 351	Contig	6/13/2022
40	GCA_042863325.1	ASM4286332v1	<i>Priestia aryabhatai</i>	2	Contig	10/9/2024
41	GCA_037907665.1	ASM3790766v1	<i>Priestia aryabhatai</i>	ILBB510	Contig	4/1/2024
42	GCA_040544935.1	ASM4054493v1	<i>Priestia aryabhatai</i>	1389	Contig	7/8/2024
43	GCA_019748795.1	ASM1974879v1	<i>Priestia aryabhatai</i>	I1-P2	Contig	8/24/2021
44	GCA_019748975.1	ASM1974897v1	<i>Priestia aryabhatai</i>	I2-P1	Contig	8/24/2021
45	GCA_000785045.1	ASM78504v1	<i>Priestia aryabhatai</i>	GZ03	Contig	11/17/2014
46	GCA_001038965.1	ASM103896v1	<i>Priestia aryabhatai</i>	LK25	Contig	6/24/2015
47	GCA_038039225.1	ASM3803922v1	<i>Priestia aryabhatai</i>	FSL H7-0740	Contig	4/9/2024
48	GCA_046603605.1	ASM4660360v1	<i>Priestia aryabhatai</i>	MS3	Contig	1/11/2025
49	GCA_019748955.1	ASM1974895v1	<i>Priestia aryabhatai</i>	I2-P2	Contig	8/24/2021
50	GCA_903971025.1	ASM90397102v1	<i>Priestia aryabhatai</i>	ME39	Contig	7/30/2020
51	GCA_019748845.1	ASM1974884v1	<i>Priestia aryabhatai</i>	I1-R2	Contig	8/24/2021
52	GCA_019748995.1	ASM1974899v1	<i>Priestia aryabhatai</i>	I2-R5	Contig	8/24/2021
53	GCA_903971035.1	ASM90397103v1	<i>Priestia aryabhatai</i>	ME42	Contig	7/30/2020
54	GCA_019748635.1	ASM1974863v1	<i>Priestia aryabhatai</i>	S/N-304-OC-R3	Contig	8/24/2021

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55	GCA_019748815.1	ASM1974881v1	<i>Priestia aryabhatai</i>	I1-P3	Contig	8/24/2021
56	GCA_019749195.1	ASM1974919v1	<i>Priestia aryabhatai</i>	PL-R1	Contig	8/24/2021
57	GCA_019749215.1	ASM1974921v1	<i>Priestia aryabhatai</i>	PL-P1	Contig	8/24/2021
58	GCA_001619595.1	ASM161959v1	<i>Priestia aryabhatai</i>	M46	Contig	4/13/2016
59	GCA_019749225.1	ASM1974922v1	<i>Priestia aryabhatai</i>	PL-R2	Contig	8/24/2021
60	GCA_036223005.1	ASM3622300v1	<i>Priestia aryabhatai</i>	BD-310	Contig	1/26/2024
61	GCA_019748835.1	ASM1974883v1	<i>Priestia aryabhatai</i>	I1-B2	Contig	8/24/2021
62	GCA_001043825.1	ASM104382v1	<i>Priestia aryabhatai</i>	LK20	Contig	6/30/2015
63	GCA_002208605.1	ASM220860v1	<i>Priestia aryabhatai</i>	SQU-R12	Contig	6/7/2017
64	GCA_002167185.1	ASM216718v1	<i>Priestia aryabhatai</i>	B14	Contig	6/5/2017
65	GCA_037164135.1	ASM3716413v1	<i>Priestia aryabhatai</i>	DX_4	Contig	3/14/2024
66	GCA_039595015.1	ASM3959501v1	<i>Priestia aryabhatai</i>		Contig	5/9/2024
67	GCA_037164005.1	ASM3716400v1	<i>Priestia aryabhatai</i>	DBM1	Contig	3/14/2024
68	GCA_900101665.1	IMG-taxon 2623620453 annotated assembly	<i>Priestia aryabhatai</i> B8W22	B8W22	Scaffold	10/21/2016
69	GCA_021887535.1	ASM2188753v1	<i>Priestia aryabhatai</i>	UASWS1812-B29	Scaffold	2/2/2022
70	GCA_029076425.1	ASM2907642v1	<i>Priestia aryabhatai</i>	M10	Scaffold	3/9/2023
71	GCA_036223205.1	ASM3622320v1	<i>Priestia aryabhatai</i>	BD-254	Scaffold	1/26/2024
72	GCA_042742575.1	ASM4274257v1	<i>Priestia aryabhatai</i>	NPDC058888	Scaffold	10/8/2024
73	GCA_001858395.1	ASM185839v1	<i>Priestia aryabhatai</i>	AB211	Scaffold	11/1/2016
74	GCA_020102825.1	ASM2010282v1	<i>Priestia aryabhatai</i>	MCCB 387	Scaffold	9/23/2021
75	GCA_014138775.1	ASM1413877v1	<i>Priestia aryabhatai</i>	S00060	Scaffold	8/10/2020
76	GCA_037624045.1	ASM3762404v1	<i>Priestia aryabhatai</i>	y170	Scaffold	3/26/2024
77	GCA_043422065.1	ASM4342206v1	<i>Priestia aryabhatai</i>	HQB-99	Scaffold	10/18/2024
78	GCA_040203395.1	ASM4020339v1	<i>Priestia aryabhatai</i>	A3	Scaffold	6/16/2024
79	GCA_036222975.1	ASM3622297v1	<i>Priestia aryabhatai</i>	BD-314	Scaffold	1/26/2024
80	GCA_036223225.1	ASM3622322v1	<i>Priestia aryabhatai</i>	BD-237	Scaffold	1/26/2024
81	GCA_036224325.1	ASM3622432v1	<i>Priestia aryabhatai</i>	B-351	Scaffold	1/26/2024
82	GCA_036223955.1	ASM3622395v1	<i>Priestia aryabhatai</i>	B-4028	Scaffold	1/26/2024
83	GCA_036220385.1	ASM3622038v1	<i>Priestia aryabhatai</i>	NRS-958	Scaffold	1/26/2024
84	GCA_002569785.1	ASM256978v1	<i>Priestia aryabhatai</i>	AFS075785	Scaffold	10/17/2017
85	GCA_036223085.1	ASM3622308v1	<i>Priestia aryabhatai</i>	BD-281	Scaffold	1/26/2024
86	GCA_002569015.1	ASM256901v1	<i>Priestia aryabhatai</i>	AFS088312	Scaffold	10/17/2017
87	GCA_002588685.1	ASM258868v1	<i>Priestia aryabhatai</i>	AFS033892	Scaffold	10/18/2017
88	GCA_002555815.1	ASM255581v1	<i>Priestia aryabhatai</i>	AFS007213	Scaffold	10/16/2017
89	GCA_036224305.1	ASM3622430v1	<i>Priestia aryabhatai</i>	B-353	Scaffold	1/26/2024
90	GCA_014932885.1	ASM1493288v1	<i>Priestia aryabhatai</i>	s1338	Scaffold	10/26/2020
91	GCA_036220585.1	ASM3622058v1	<i>Priestia aryabhatai</i>	NRS-771	Scaffold	1/26/2024
92	GCA_036220665.1	ASM3622066v1	<i>Priestia aryabhatai</i>	BD-316	Scaffold	1/26/2024
93	GCA_036223505.1	ASM3622350v1	<i>Priestia aryabhatai</i>	B-14944	Scaffold	1/26/2024
94	GCA_036222965.1	ASM3622296v1	<i>Priestia aryabhatai</i>	BD-311	Scaffold	1/26/2024
95	GCA_024581075.1	ASM2458107v1	<i>Priestia aryabhatai</i>	BD1	Scaffold	8/6/2022
96	GCA_036223165.1	ASM3622316v1	<i>Priestia aryabhatai</i>	BD-258	Scaffold	1/26/2024
97	GCA_036220725.1	ASM3622072v1	<i>Priestia aryabhatai</i>	BD-313	Scaffold	1/26/2024
98	GCA_036223095.1	ASM3622309v1	<i>Priestia aryabhatai</i>	BD-276	Scaffold	1/26/2024