Table S4 FISH-based scaffold order, orientation, size, and chromatin type

Chr.	Scaffold Name[1,2]	Scaffold Number[2,3]	Left (head)[4] BAC Probe[5]	Right (tail)[4] BAC Probe[5]	Scaffold Size (Mb)[6]	SC len. (µm)	Chromatin Type[11]
1	SL2.40sc04133	1	s090M22	M034D03	33.0	5.8	Eu/Het
1	SL2.40sc04191	3	s053P14	s083L21	1.7	0.2	Het
1	SL2.40sc03666	2	E016I11	H033N15	2.6	0.2	Het
1	SL2.40sc03594	4	s006A13	s042B18	6.3	0.7	Het
1	SL2.40sc05010	5	s042O02	H037N04	20.5	2.9	Het/Border
1	SL2.40sc05941	6	s040G18	E021C24	6.2	1.7	Eu/Border
1	SL2.40sc06903	8	s022L14	s121I01	2.7	1.1	Eu
1	SL2.40sc06917	7	s071P10	n/a[7]	0.4	n/a	Eu
1	SL2.40sc04323	9	s024J19	M028C09	17.0	12.6	Eu
2	SL2.40sc04732	4	E007F19	E008B15	1.7	0.2	Het
2	SL2.40sc04208	6	s053E24	s044P10	1.4	0.2	Het
2	SL2.40sc05776	5	H011G24	M036C03	2.1	0.5	Het
2	SL2.40sc06593	1	s056I16	s079J24	4.0	0.5	Het
2	SL2.40sc04142	2	s053C07	s050E09	6.5	1.5	Het/Cent
2	SL2.40sc03766	3	M021A03	E034J17	11.7	2.5	Het/Border
2	SL2.40sc03665	7	s101F18	M017J13	22.4	15.3	Eu
3	SL2.40sc04439	1	s009C01	s086D22	2.5	1.4	Eu
3	SL2.40sc04696	4	s018K15	s002G24	1.3	0.5	Eu
3	SL2.40sc05330	5	s050E05	H037B06	2.6	0.9	Eu/Border
3	SL2.40sc04126	6	H020G20	H039C15	6.5	0.9	Het/Border
3	SL2.40sc04616	9	M079O10	M002J15	3.1	0.6	Cent/Het
3	SL2.40sc06725	7	H244B01	E121G21	3.0	0.3	Het
3	SL2.40sc04704	8	H027L13	s071G06	18.6	2.2[8]	Het
3	SL2.40sc03721	12	E018K21	H028L03	1.1	0.0[8]	Het/Border
3	SL2.40sc04822	2	s042B23	H030A19	4.1	0.5[8]	Het/Border
3	SL2.40sc03806	10	H011C02	H001H05	5.5	1.8[8]	Border/Eu
3	SL2.40sc03796	11	M003H09	E031G05	7.0	2.4	Eu
3	SL2.40sc06911	3	M015G06	s048H23	0.4	0.0	Eu
3	SL2.40sc03701	13	E006F17	E034G21	9.2	6.2	Eu
4	SL2.40sc03604	1	M035I14	H012B20	11.6	4.2	Eu/Het
4	SL2.40sc05339	3	E036C15	H018I03	2.0	0.6	Het/Cent
4	SL2.40sc03683	2	M036H17	M016J15	17.6	2.5	Cent/Het
4	SL2.40sc06101	4	M038M16	M029O16	23.3	4.6	Het/Eu
4	SL2.40sc04680	5	H013P02	M018D12	0.8	0.4	Eu

4	SL2.40sc04135	6	H020C13	M023M21	8.8	5.2	Eu
5	SL2.40sc03726	1	s094J05	H002J04	42.1	9.1	Eu/Het/Cent
5	SL2.40sc06155	2	s031L05	s084H11	4.3	0.2	Het
5	SL2.40sc03902	3	H016D20	E004N07	18.6	4.9	Eu/Het
6	SL2.40sc04474	1	M032G6	H028K02	8.6	2.3	Eu/Het
6	SL2.40sc06140	3	H025N04	M029F23	0.7	0.1	Het
6	SL2.40sc05383	2	E040C12	E013C07	6.1	1.3	Het/Cent
6	SL2.40sc04279	4	M029C07	E009J17	9.6	1.6	Het
6	SL2.40sc05188	5	E033O20	H031J01	2.4	0.2	Border
6	SL2.40sc05732	6	M034N10	E023E10	6.6	2.4	Border/Eu
6	SL2.40sc05054	7	E018M04	E008B16	10.3	6.2	Eu
6	SL2.40sc03622	8	H025F06	E019F04	1.8	1.2	Eu
7	SL2.40sc03731	1	E006L14	M016H01	33.3	6.5	Eu/Het/Cent
7	SL2.40sc05397	2	H032J14	E016C19	8.0	0.9	Het
7	SL2.40sc03685	3	H001O15	E032D11	20.7	5.7	Het/Eu
7	SL2.40sc04626	4	H024C01	M017L19	3.4	2.0	Eu
8	SL2.40sc04813	1	H030O09	H008J16	3.0	1.5	Eu
8	SL2.40sc03770	2	H015E06	H009K19	6.3	1.2	Eu/Border
8	SL2.40sc04167	7	M012I24	n/a[7]	0.2	n/a	Het
8	SL2.40sc03749	5	s093G06	s030B23	1.5	0.2	Het
8	SL2.40sc04236	6	s105O13	M005G10	14.6	2.2	Het/Cent
8	SL2.40sc03835	3	s078C24	s058J24	8.4	1.1	Het
8	SL2.40sc04701	4	E024O12	M019D14	7.0	0.7	Het
8	SL2.40sc04948	8	H033A16	M007C12	14.4	3.8	Eu/Het
8	SL2.40sc03923	9	s082B11	E040H01	7.5	4.6	Eu
9	SL2.40sc03771	1	M032A02	M025N23	19.2	5.2	Eu/Het
9	SL2.40sc04008	4	E015A15	E025E12	5.2	0.9	Het/Cent
9	SL2.40sc04950	3	E018E08	M005G01	5.8	0.5	Het
9	SL2.40sc04785	5	M013P10	E022O16	2.0	0.0	Het
9	SL2.40sc04777	6	M018I03	H005M15	28.2	4.7	Eu/Het
9	SL2.40sc06916	2	F051C04	n/a[7]	0.0[9]	n/a	Eu
9	SL2.40sc05269	7	M019G06	M020M04	2.7	1.0	Eu
9	SL2.40sc03852	8	M025N11	H010F04	1.3	0.4	Eu
9	SL2.40sc04828	9	H001I06	E024O21	2.5	0.9	Eu
9	SL2.40sc06214	10	M037I08	M022L14	0.6	0.4	Eu
10	SL2.40sc05925	1	E027L04	E009D07	5.4	2.2	Eu/Border
10	SL2.40sc03798	2	H023E16	s071N16	16.5	1.9	Het
10	SL2.40sc04872	4	E029F05	M011N01	3.9	1.1	Cent
10	SL2.40sc05632	3	s042K13	s121P17	31.1	4.7	Eu/Het

10	SL2.40sc04534	5	F014E24	n/a[7]	0.1	n/a	Eu
10	SL2.40sc04199	6	E036N16	E008A07	8.0	4.5	Eu
11	SL2.40sc03748	1	s029B21	E018D15	15.2	5.2	Eu/Het
11	SL2.40sc06763	4	H008F06	H004F15	2.5	0.3	Het
11	SL2.40sc04054	2	s082L15	H001N12	8.0	1.8	Het/Cent
11	SL2.40sc03752	3	E031L09	s045H10	17.4	2.3	Het/Border
11	SL2.40sc06137	5	s084O21	s017L16	2.1	0.2	Border
11	SL2.40sc03876	6	s105E01	s014A19	8.2	3.8	Eu
12	SL2.40sc04607	1	M030P17	E005K14	16.1	4.3	Eu/Border
12	SL2.40sc06147	8	H016B06	M038L04	1.2	0.1	Border
12	SL2.40sc04039	7	E036O23	E003D15	4.9	0.3	Border
12	SL2.40sc04878	2	M008A07	H003H12	5.7	0.5	Het
12	SL2.40sc04266	6	M023C14	E004B02	1.3	0.1	Het
12	SL2.40sc04757[10]	5	M040D19	E012H19	5.8	1.4	Het/Cent
12	SL2.40sc04057	3	H005D14	M035N06	25.2	4.2	Eu/Het
12	SL2.40sc04915	4	M006L17	H017P17	1.6	0.3	Eu
12	SL2.40sc05611	9	E031M18	E024H05	1.2	0.4	Eu
12	SL2.40sc05380	10	H029L21	E030J22	2.6	1.4	Eu
				Total:	760.0	196.7	

[1] http://solgenomics.net/cview/map.pl?map_id=agp

[2] FISH-based scaffolds are color coded with reference to a comparison with their order and orientation determined using the Kazusa EXPEN 2000 linkage map. Scaffold names and numbers that are unchanged by FISH are shown with black lettering on a white background. Changed scaffolds are shown with white lettering on a red background (order only), white lettering on a blue background (orientation only), and white lettering on a purple background (both order and orientation).

[3] Scaffold number is determined by scaffold order from head to tail in the pseudomolecules based on the linkage map.

[4] Left and right refer to the probe orientation when the chromosomes are diagramed with the telomere of the short arm on the left (= head) and the telomere of the long arm on the right (= tail).

[5] BAC library names have been abbreviated. H=HindIII, E=EcoRI, M=MboI, s=sheared, F=Fosmid

[6] The Tomato Genome Consortium, 2012 The tomato genome sequence provides insights into fleshy fruit evolution. Nature 485: 635-641; http://solgenomics.net

[7] Not applicable because only one BAC/fosmid was localized in this small scaffold.

[8] SC length determinations are relatively inaccurate in and near scaffolds 12 and 2.

[9] The actual length of this scaffold is 17.6 Kb so it is rounded to 0.0 Mb.

[10] Scaffold SL2.40sc04757 was ordered and oriented in Heinz 1706 because this scaffold was involved in an inversion around the kinetochore of Cherry Tomato LA4444.

11 Eu = euchromatin; Het = heterochromatin; cent = centromere/kinetochore; Border (transition between euchromatin and heterochromatin); Eu/Het includes euchromatin, heterochromatin, and the border between Eu and Het; Het/Cent includes heterochromatin and centromere; Border/Eu includes euchromatin and border with heterochromatin; Eu/Het/Cent includes euchromatin, the border with heterochromatin, heterochromatin and centromeres.