

Table EV1: Description of the consensus sequences of the HOR arrays used as reference.

HOR Array ID	Length (bp)	Locus	Chr	Genbank Accession	Reference
cen1_1	1019	D1Z7/D5Z2/D19Z3	1,5,19		
cen1_2	1866	D1Z5	1	pSD1-1	Willard and Waye (1978b)
cen1_3	1866	N/A	1	N/A	N/A
cen1_4	1530	N/A	1	N/A	N/A
cen1_5	1530	N/A	1	N/A	N/A
cen2	1360	D2Z1	2	M81229	Haaf and Willard (1992)
cen3_1	2891	D3Z1	3	Z12006	Alexandrov et al (1993b)
cen3_2	1699	N/A	3	N/A	N/A
cen3_3	340	N/A	3	N/A	N/A
cen4	3230	D4Z1 (pYAM11-39)	4	Z12011-2, p4n1/4, pG-XbaI/340	Mashkova et al (1994)
cen5_1	2214	N/A	5	AJ295045; pGA16	Hulsebos et al (1988)
cen5_2	2558	N/A	5	N/A	N/A
cen5_3	2719	N/A	5	N/A	N/A
cen5_4	5456	N/A	5	N/A	N/A
cen5_5	2736	N/A	5	N/A	N/A
cen5_6	4089	N/A	5	N/A	N/A

cen6	3057	D6Z1	6	AB005791	Suigimoto et al. (1997);Jabs et al (1984); Jabs and Perisco (1987)
cen7_1	1022	D7Z1	7	M16087, M16101	Waye et al (1987)
cen7_2	2734	D7Z2	7	M16037	Waye et al (1987)
cen8	1868	D8Z2	8	M64779	Ge et al. (1992)
cen9	680	D9Z4	9	M64320	Rocchi et al. (1991)
cen10_1	1019	D10Z1	10		Looijenga et al (1992)
cen10_2	3058	N/A	10	N/A	N/A
cen10_3	2375	N/A	10	N/A	N/A
cen10_4	2736	N/A	10	N/A	N/A
cen11_1	850	D11Z1	11	M21452	Waye et al (1987)
cen11_2	2047	N/A	11	N/A	N/A
cen11_3	2736	N/A	11	N/A	N/A
cen12_1	1359	D12Z3	12	M93287	Looijenga et al (1992)
cen12_2	3056	N/A	12	N/A	N/A
cen13_1	1870	D13Z1/D21Z1 (alphaRI,L1.26)	13,21	D29750	
cen13_2	3914	D13Z4/D14Z6/D21Z5 (pTRA-2)	13,14,21	X55367	
cen13_3	1367	N/A	13,14,21	N/A	N/A
cen13_4	5642	N/A	13,14,21,22	N/A	N/A
cen13_5	2904	N/A	13,14,21	N/A	N/A

cen14	3758	D13Z6/D14Z8/D21Z7 (pTRA-7)	13,14,21	X55369	
cen15_1	2557	D15Z3 (pTRA-20)	15	AF237720	
cen15_2	3415	D15Z4 (pTRA-25)	15	N/A	Choo et al (1990)
cen15_3	4264	N/A	15	N/A	N/A
cen16_1	1699	D16Z2	16	M58446	Greig et al (1989)
cen16_2	1702	N/A	16		
cen17_1	2716	D17Z1	17	M13882; P17H8	Waye and Willard (1986)
cen17_2	2379	D17Z1B	17		Rudd and Willard (2004)
cen17_3	2382	N/A	17	N/A	N/A
cen18_1	2035	D18Z1 (pYAM9-60)	18	M65181	Alexandrov et al (1991)
cen18_2	1701	D18Z2 (pYAM4-22)	18	M38466	Alexandrov et al (1988)
cen18_3	1872	N/A	18	N/A	N/A
cen18_4	11225	N/A	18	N/A	N/A
cen18_5	3403	N/A	18	N/A	N/A
cen18_6	3403	N/A	18	N/A	N/A
cen19	2895	N/A	19	N/A	N/A
cen20_1	2719	D20Z2 (pZ20R)	20	X58269	Baldini et al (1992)
cen20_2	1360	N/A	20	N/A	N/A
cen20_3	1872	N/A	20	N/A	N/A
cen20_4	1368	N/A	20	N/A	N/A
cen20_5	1878	N/A	20	N/A	N/A

cen20_6	3246	N/A	20	N/A	N/A
cen22_1	1364	alpha-T(1360) 14-204 III	14,22	M22279,M22295	Jorgensen,A.L. et al. (1988)
cen22_2	2737	D13Z5/D14Z7/D21Z6 (pTR9-H2)	22	N/A	Vissel et al (1992)
cen22_3	3425	N/A	14,22	N/A	N/A
cen22_4	3425	N/A	14,22	N/A	N/A
cen22_5	2054	D22Z2 (alpha III)	22	M28299	McDermid et al (1986)
cenX	2057	DXZ1	X	X02418	Waye and Willard (1985)
cenY	5785	DYZ3	Y	M29724	Tyler-Smith and Brown (1987)