

**Supplementary Table 1: Throughput for each of the BAC runs.**

<b>BAC ID</b>	<b>Type</b>	<b># reads</b>	<b>Yield (Mb)</b>	<b>Selected Full-length Range (kb)</b>	<b># reads</b>	<b>Yield (Mb)</b>	<b>Consensus length (bp)</b>
108I14	Control Yp-arm (Yp11.2)	4966	220	75-85	1686	135	80653
531P03	DYZ3 array; unknown order	19620	174	155-175	251	41	165830
808M02	DYZ3 array; unknown order	21936	87	140-180	144	22	149351
1226J10	Yq-arm+HSATIII	23137	716	150-170	689	111	161191
909C13	DYZ3 array; unknown order	24710	969	160-180	400	69	175340
744B15	DYZ3 array; unknown order	348	24	180-200	51	10	194752
890C20	DYZ3 array; unknown order	1221	76	180-195	118	22	190388
648J16	DYZ3 array; unknown order	5485	217	190-200	200	39	198027
718M18	DYZ3 array; unknown order	34354	1239	200-220	525	110	210001
482A22	Control (Xq24)	3437	177	150-200	370	62	170373

**SUPPLEMENTARY REFERENCES:**

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