

Table S1. A detailed description of targeted deep sequencing data.

Sample_ID	Mapped reads (%)	Percent reads on target*	Coverage (mean)*	Percent of bases (>=20 reads)*
MDS028	2,024,214	99.0%	1532	99.4%
MDS029	1,781,571	99.1%	1390	99.2%
MDS033	1,834,138	99.1%	1397	99.3%
MDS034	2,248,127	99.0%	1676	99.4%
MDS035	1,812,566	99.0%	1661	99.2%
MDS036	3,115,081	98.9%	2206	99.6%
MDS037	1,597,741	99.1%	2098	98.8%
MDS040	1,953,754	99.1%	1798	99.0%
MDS041	2,109,576	99.1%	1579	99.0%
MDS042	2,166,416	99.1%	1552	99.1%
MDS043	1,540,274	99.1%	1141	98.9%
MDS045	2,286,811	99.0%	1670	99.2%
MDS046	2,325,480	99.1%	1743	98.9%
MDS047	1,904,268	99.3%	1400	98.9%
MDS048	1,435,694	99.0%	1094	98.7%
MDS051	1,400,672	99.4%	1079	98.8%
MDS055	2,056,876	99.2%	1607	99.0%
MDS056	1,665,769	99.1%	1316	98.9%
MDS057	2,132,201	99.2%	1627	99.2%
MDS058	1,957,809	99.2%	1534	99.2%
MDS059	2,187,953	99.1%	1650	99.1%
MDS060	1,705,795	99.0%	1298	98.8%
MDS086	2,110,328	97.5%	1700	99.5%
MDS087	3,483,657	99.1%	2798	99.6%
MDS097	2,244,286	97.1%	1797	99.6%
MDS101	2,886,218	99.2%	2375	99.6%
MDS106	3,203,758	98.9%	2541	99.4%
MDS107	3,901,983	99.2%	3066	99.4%
MDS109	3,760,300	96.8%	2937	99.6%
MDS110	3,975,792	99.0%	3099	99.6%
MDS119	4,657,533	99.2%	3663	99.4%
MDS125	1,139,809	99.0%	878.1	98.5%
MDS126	1,436,654	96.8%	1125	98.5%
MDS127	1,551,600	99.1%	1201	98.5%
MDS129	2,041,294	99.1%	1556	98.6%
MDS131	1,812,701	99.1%	1331	98.6%
MDS132	2,569,820	99.0%	1941	99.0%
MDS133	1,542,166	99.1%	5118	98.7%
MDS134	1,748,991	96.8%	1358	98.7%
MDS139	1,952,936	99.0%	1536	99.0%
MDS141	1,558,586	99.0%	1214	98.7%
MDS142	1,496,831	98.9%	1165	98.6%
MDS143	2,182,382	99.1%	1357	98.7%

MDS144	2,896,444	98.8%	2447	99.2%
MDS147	2,421,285	98.9%	1378	99.0%
MDS151	1,311,629	99.2%	1003	97.8%
MDS154	3,046,801	99.1%	2267	98.8%
MDS156	1,731,694	99.3%	1323	98.3%
MDS158	1,309,659	99.0%	982.6	98.0%
MDS160	1,682,681	99.3%	1348	98.6%
MDS161	1,377,059	99.3%	1102	98.7%
MDS162	2,556,412	99.0%	1982	99.4%
MDS163	2,394,196	99.1%	1885	99.1%
MDS164	2,024,379	99.2%	1556	99.0%
MDS165	4,031,099	99.1%	3153	99.5%
MDS166	2,636,250	99.0%	1994	99.4%
MDS167	3,959,815	99.0%	3008	99.5%
MDS168	2,016,774	99.0%	1554	99.2%
MDS169	3,330,427	98.8%	2510	99.6%
MDS170	2,127,339	99.1%	1668	99.3%
MDS172	1,765,996	99.3%	1409	98.8%
MDS173	2,548,597	99.3%	2047	99.2%
MDS177	2,293,449	99.2%	1832	99.1%
MDS181	2,150,802	99.2%	1698	99.2%
MDS182	2,075,515	99.2%	1656	99.2%
MDS185	1,476,216	99.2%	1163	98.5%
MDS200B	3,863,998	99.3%	3331	99.7%
MDS201B	4,002,047	99.4%	3460	99.8%
MDS202B	3,764,654	99.2%	3266	99.5%
MDS203B	4,196,432	99.4%	3631	99.6%
MDS204B	3,810,365	99.4%	3285	99.6%
MDS205B	3,986,420	98.9%	3404	99.6%
MDS206B	3,817,052	99.2%	3253	99.7%
MDS207B	4,313,954	99.2%	3663	99.6%
MDS208B	4,132,795	99.4%	3545	99.6%
MDS209B	3,944,716	99.3%	3363	99.6%
MDS210B	3,923,016	99.4%	3414	99.7%
MDS211B	3,811,201	99.4%	3323	99.6%
MDS212B	3,978,528	99.3%	3444	99.6%
MDS213B	3,614,522	99.5%	3160	99.5%
MDS214B	4,002,593	99.2%	3448	99.6%
MDS215B	4,610,807	99.2%	3938	99.7%
MDS216B	4,635,326	98.6%	3937	99.7%
MDS217B	2,816,611	98.2%	2350	99.6%
MDS218B	4,002,293	98.8%	3451	99.7%
MDS219B	4,131,001	98.8%	3570	99.6%
MDS220B	2,655,720	98.1%	2181	99.7%
MDS221B	2,644,037	98.4%	2184	99.7%
MDS222B	2,708,946	98.7%	2252	99.8%

MDS223B	3,184,884	98.4%	2635	99.7%
MDS224B	4,122,279	98.5%	3392	99.7%
MDS225B	3,706,020	98.4%	3051	99.7%
MDS226B	3,044,254	98.8%	2511	99.5%
MDS227B	4,012,557	99.0%	3340	99.7%
MDS228B	3,174,061	98.7%	2591	99.7%
MDS229B	2,931,896	98.6%	2453	99.7%
MDS230B	3,626,680	98.4%	2977	99.5%
MDS231B	3,333,163	98.7%	2733	99.8%
MDS232B	2,305,284	99.2%	1901	99.6%
MDS233B	2,568,668	99.4%	2144	99.7%
MDS234B	2,175,808	99.2%	1808	99.7%
MDS235B	2,213,311	99.4%	1863	99.6%
MDS236B	2,597,303	99.1%	2137	99.6%
MDS237B	2,153,306	99.3%	1807	99.6%
MDS239B	2,881,007	99.4%	2377	99.7%
MDS240B	3,561,836	99.4%	2958	99.7%
MDS241B	2,384,789	99.3%	1989	99.5%
MDS242B	2,623,979	97.9%	2116	99.6%
MDS243B	2,640,000	99.2%	2201	99.7%
MDS244B	3,251,671	99.0%	2697	99.6%
MDS245B	2,142,950	99.2%	1762	99.6%
MDS246B	3,096,010	99.4%	2580	99.6%
MDS247B	3,512,589	99.3%	2881	99.5%
MDS248B	3,003,627	99.2%	2499	99.8%
MDS249B	2,125,713	99.0%	1782	99.6%
MDS250B	2,733,027	99.4%	2496	99.7%
MDS251B	2,585,137	99.1%	2354	99.8%
MDS252B	2,352,745	98.9%	2138	99.7%
MDS253B	2,495,207	99.2%	2074	99.6%
MDS254B	2,874,392	98.5%	2603	99.7%
MDS255B	2,695,558	99.4%	2461	99.6%
MDS256B	2,542,735	98.9%	2311	99.6%
MDS257B	2,606,798	99.2%	2376	99.6%
MDS258B	2,918,468	99.2%	2660	99.7%
MDS259B	2,588,453	99.1%	2357	99.6%
MDS260B	2,428,508	99.2%	2215	99.6%
MDS263B	2,964,482	99.0%	2696	99.6%
MDS264B	2,653,869	99.1%	2180	99.6%
MDS265B	2,629,267	98.8%	2388	99.6%
MDS267B	2,999,413	99.2%	2735	99.7%
MDS268B	2,727,712	96.6%	2421	99.7%
MDS270B	2,681,170	99.0%	2440	99.8%
MDS271B	1,730,606	98.7%	1569	99.6%
MDS272B	2,359,141	99.3%	2153	99.6%
MDS273B	2,584,321	98.9%	2349	99.6%

MDS274B	2,470,798	99.2%	2034	99.6%
MDS276B	2,496,748	98.8%	2057	99.6%
MDS277B	2,635,161	99.3%	2404	99.6%
MDS278B	2,658,177	97.6%	2385	99.7%
MDS279B	2,524,009	99.1%	2298	99.6%
MDS281B	2,636,070	99.5%	2411	99.6%
MDS282B	2,941,811	99.5%	2473	99.4%
MDS284B	2,771,210	99.3%	2334	99.6%
MDS285B	2,455,477	99.1%	2236	99.7%
MDS288B	2,740,684	98.6%	2485	99.5%
MDS289B	1,871,371	99.1%	1704	99.4%
MDS292B	2,198,004	99.1%	1764	99.5%
MDS299B	2,329,679	98.7%	2113	99.6%
MDS300B	1,823,800	99.3%	1516	99.2%
MDS302B	2,365,607	99.1%	2156	99.6%
MDS304B	2,476,200	98.7%	2247	99.5%
MDS305B	2,430,888	99.3%	2218	99.5%
MDS306B	2,379,015	99.0%	2165	99.6%
MDS307B	2,626,606	98.9%	2387	99.7%
MDS308B	2,502,323	99.2%	2106	99.5%
MDS309B	2,300,366	98.8%	2089	99.5%
MDS310B	2,858,332	99.4%	2611	99.6%
MDS312B	2,380,302	99.2%	2171	99.5%
MDS314B	2,312,558	98.9%	2101	99.6%
MDS315B	2,789,875	99.0%	2538	99.7%
MDS316B	2,302,043	99.3%	2100	99.5%
MDS317B	2,394,890	99.4%	2187	99.7%
MDS318B	2,280,431	99.6%	2087	99.7%
MDS319B	2,681,519	99.5%	2453	99.6%
MDS320B	2,498,312	99.6%	2167	99.5%
MDS322B	2,612,740	99.3%	2385	99.7%
MDS323B	2,438,931	99.3%	2226	99.6%
MDS324B	2,556,181	99.5%	2222	99.4%
MDS325B	3,419,463	97.4%	3061	99.8%
MDS327B	3,116,171	99.5%	2849	99.7%
MDS328B	3,235,631	99.4%	2954	99.7%
MDS329B	2,986,230	99.1%	2720	99.6%
MDS330B	3,492,346	98.7%	2961	99.6%
MDS331B	3,194,472	99.3%	2915	99.7%
MDS332B	2,903,559	99.4%	2654	99.5%
MDS333B	3,172,627	99.5%	2901	99.7%
MDS334B	3,237,249	99.4%	2958	99.8%
MDS335B	2,835,702	99.4%	2590	99.7%
MDS336B	2,818,323	99.3%	2573	99.6%
MDS337B	3,094,741	98.9%	2812	99.8%
MDS340B	2,609,261	99.5%	2387	99.5%

MDS341B	2,999,184	99.1%	2733	99.6%
MDS342B	2,936,850	99.4%	2683	99.6%
MDS343B	2,500,052	99.6%	2148	99.6%
MDS344B	2,652,823	99.2%	2419	99.6%
MDS346B	2,702,194	99.6%	2473	99.5%
MDS347B	2,707,175	99.3%	2471	99.7%
MDS348B	2,442,643	99.3%	2076	99.6%
MDS349B	2,323,509	99.4%	2123	99.7%
MDS350B	2,344,791	99.4%	2142	99.7%
MDS351B	2,804,004	98.6%	2541	99.7%
MDS352B	1,961,387	99.2%	1658	99.6%
MDS353B	1,340,163	99.2%	1222	99.2%
MDS355B	2,549,000	99.3%	2325	99.6%
MDS356B	2,524,851	99.3%	2305	99.4%
MDS357B	2,613,687	99.5%	2389	99.3%
MDS358B	1,862,051	99.5%	1703	99.4%
MDS360B	2,360,691	99.4%	2157	99.7%
MDS361B	2,573,843	99.3%	2350	99.4%
MDS362B	2,559,637	98.3%	2131	99.6%
MDS364B	3,038,008	99.1%	2768	99.7%
MDS365B	2,196,511	99.0%	1880	99.5%
MDS366B	2,392,154	98.9%	2175	99.5%
MDS367B	2,389,338	99.5%	2185	99.6%
MDS368B	2,619,301	99.3%	2390	99.8%
MDS369B	2,699,585	99.4%	2466	99.5%
MDS370B	2,484,835	98.7%	2254	99.6%
MDS371B	3,219,759	98.8%	2924	99.7%
MDS372B	2,329,365	99.4%	2129	99.2%
MDS373B	2,903,858	99.5%	2654	99.6%
MDS375B	2,750,671	99.0%	2503	99.6%
MDS377B	3,301,944	99.4%	3016	99.5%
MDS378B	3,356,388	99.0%	3055	99.4%
MDS379B	2,073,090	99.4%	1893	99.4%
MDS380B	2,233,197	99.5%	2043	99.2%
MDS381B	1,731,372	99.1%	1577	99.5%
MDS383B	2,352,642	99.3%	2146	99.6%
MDS385B	2,252,229	99.4%	1848	99.6%
MDS386B	2,245,803	99.6%	1889	99.5%
MDS388B	2,442,429	99.4%	2022	99.5%
MDS389B	1,881,042	99.5%	1720	99.0%
MDS391B	2,403,906	99.4%	2197	99.6%
MDS392B	2,353,202	99.2%	2144	99.6%
MDS394B	2,370,841	99.3%	2164	99.5%
MDS395B	2,343,780	99.4%	2142	99.7%
MDS396B	2,202,588	99.4%	2013	99.5%
MDS397B	1,971,006	99.2%	1797	99.6%

MDS398B	2,499,155	99.3%	2105	99.6%
MDS399B	1,897,803	99.2%	1729	99.5%
MDS400B	2,565,469	99.2%	2339	99.7%
MDS401B	2,389,725	99.4%	2183	99.6%
MDS403B	2,745,072	99.3%	2268	99.6%
MDS404B	2,579,352	99.4%	2356	99.6%
MDS405B	2,661,322	99.5%	2281	99.7%
MDS406B	2,264,672	99.4%	2068	99.6%
MDS407B	2,705,263	99.3%	2468	99.6%
MDS409B	2,538,098	99.4%	2318	98.7%
MDS410B	2,454,768	99.4%	2243	99.6%
MDS411B	2,537,122	99.3%	2316	99.7%
MDS412B	1,184,291	99.4%	1082	99.3%
MDS413B	2,060,690	99.4%	1882	99.7%
MDS414B	1,881,315	99.3%	1717	99.7%
MDS416B	1,947,861	99.6%	1782	99.3%
MDS417B	2,686,669	99.2%	2231	99.8%
MDS418B	2,427,583	99.3%	2216	99.7%
MDS419B	2,775,806	99.5%	2538	99.4%
MDS420B	2,341,869	99.4%	1968	99.6%
MDS421B	2,679,314	99.3%	2446	99.6%
MDS422B	2,338,282	99.3%	1961	99.6%
MDS423B	3,098,584	99.1%	2823	99.6%
MDS424B	2,561,753	99.4%	2340	99.6%
MDS425B	2,463,367	99.5%	2252	99.6%
MDS426B	3,038,196	99.3%	2773	99.7%
MDS427B	2,287,274	99.5%	1959	99.5%
MDS429B	2,008,055	99.5%	1836	99.6%
MDS430B	2,771,690	99.3%	2351	99.8%
MDS431B	2,638,212	99.4%	2410	99.7%
MDS432B	2,139,887	99.5%	1822	99.7%
MDS433B	3,023,344	99.2%	2757	99.8%
MDS434B	2,266,263	99.4%	1924	99.5%
MDS435B	2,402,212	99.5%	2048	99.6%
MDS436B	2,576,919	99.6%	2207	99.7%
MDS437B	2,275,459	99.4%	2078	99.6%
MDS438B	2,300,953	99.3%	2100	99.3%
MDS439B	2,722,399	99.5%	2323	99.4%
MDS440B	2,639,669	99.4%	2258	99.5%

*The mean coverage and the % of bases (≥ 20 reads) were calculated onto the targeted regions (MDS panel).