

The following applies to MCKCP / MayoComplete Kidney Cancer Panel, Next-Generation Sequencing. Next-generation sequencing is performed to test for the presence of microsatellite instability, single nucleotide variations, deletions and insertions in coding regions and intron/exon boundaries of the genes listed. When appropriate, alterations detected are confirmed by an independent reference method, such as Sanger sequencing. Default reportable range offset is +/-2 base pairs around each targeted exon region.

Genomic Build: GRCh37 (hg19) unless otherwise specified.

As a result of technical limitations of the assay (including regions of homology, high GC content, and repetitive sequences), there are regions of some genes that cannot be effectively evaluated. Refer to gene regions table below for complete gene coverage information. To verify if a specific region/exon/variant is covered by this assay, contact the laboratory at 800-533-1710.

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
ATRX	Ex1	chrX	77041466	77041489	NM_000489
ATRX	Ex2	chrX	76972606	76972722	NM_000489
ATRX	Ex3	chrX	76954060	76954119	NM_000489
ATRX	Ex4	chrX	76953069	76953125	NM_000489
ATRX	Ex5	chrX	76952063	76952194	NM_000489
ATRX	Ex6	chrX	76949311	76949428	NM_000489
ATRX	Ex7	chrX	76944309	76944422	NM_000489
ATRX	Ex8	chrX	76940429	76940500	NM_000489
ATRX	Ex9	chrX	76937010	76940087	NM_000489
ATRX	Ex10	chrX	76931719	76931795	NM_000489
ATRX	Ex11	chrX	76920132	76920269	NM_000489
ATRX	Ex12	chrX	76918869	76919049	NM_000489
ATRX	Ex13	chrX	76912048	76912145	NM_000489
ATRX	Ex14	chrX	76909586	76909692	NM_000489
ATRX	Ex15	chrX	76907602	76907845	NM_000489
ATRX	Ex16	chrX	76891404	76891549	NM_000489
ATRX	Ex17	chrX	76890083	76890196	NM_000489
ATRX	Ex18	chrX	76889052	76889202	NM_000489
ATRX	Ex19	chrX	76888693	76888874	NM_000489
ATRX	Ex20	chrX	76875861	76876002	NM_000489
ATRX	Ex21	chrX	76874272	76874451	NM_000489
ATRX	Ex22	chrX	76872079	76872200	NM_000489
ATRX	Ex23	chrX	76855901	76856035	NM_000489
ATRX	Ex24	chrX	76855199	76855291	NM_000489
ATRX	Ex25	chrX	76854878	76855051	NM_000489
ATRX	Ex26	chrX	76849164	76849321	NM_000489
ATRX	Ex27	chrX	76845302	76845412	NM_000489
ATRX	Ex28	chrX	76829713	76829825	NM_000489
ATRX	Ex29	chrX	76814138	76814319	NM_000489
ATRX	Ex30	chrX	76812920	76813118	NM_000489
ATRX	Ex31	chrX	76778728	76778881	NM_000489

Targeted Genes and Methodology Details for MayoComplete Kidney Cancer Panel (continued)

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>ATRX</i>	Ex32	chrX	76777739	76777868	NM_000489
<i>ATRX</i>	Ex33	chrX	76776879	76776978	NM_000489
<i>ATRX</i>	Ex34	chrX	76776264	76776396	NM_000489
<i>ATRX</i>	Ex35	chrX	76763827	76764109	NM_000489
<i>BAP1</i>	Ex1	chr3	52443856	52443896	NM_004656
<i>BAP1</i>	Ex2	chr3	52443728	52443761	NM_004656
<i>BAP1</i>	Ex3	chr3	52443568	52443626	NM_004656
<i>BAP1</i>	Ex4	chr3	52442488	52442624	NM_004656
<i>BAP1</i>	Ex5	chr3	52441972	52442095	NM_004656
<i>BAP1</i>	Ex6	chr3	52441413	52441478	NM_004656
<i>BAP1</i>	Ex7	chr3	52441188	52441334	NM_004656
<i>BAP1</i>	Ex8	chr3	52440843	52440925	NM_004656
<i>BAP1</i>	Ex9	chr3	52440267	52440394	NM_004656
<i>BAP1</i>	Ex10	chr3	52439779	52439930	NM_004656
<i>BAP1</i>	Ex11	chr3	52439124	52439312	NM_004656
<i>BAP1</i>	Ex12	chr3	52438467	52438604	NM_004656
<i>BAP1</i>	Ex13	chr3	52437430	52437912	NM_004656
<i>BAP1</i>	Ex14	chr3	52437152	52437316	NM_004656
<i>BAP1</i>	Ex15	chr3	52436793	52436889	NM_004656
<i>BAP1</i>	Ex16	chr3	52436616	52436692	NM_004656
<i>BAP1</i>	Ex17	chr3	52436302	52436439	NM_004656
<i>BRAF</i>	Ex1	chr7	140624364	140624505	NM_004333
<i>BRAF</i>	Ex2	chr7	140549909	140550014	NM_004333
<i>BRAF</i>	Ex3	chr7	140534407	140534674	NM_004333
<i>BRAF</i>	Ex4	chr7	140508690	140508797	NM_004333
<i>BRAF</i>	Ex5	chr7	140507758	140507864	NM_004333
<i>BRAF</i>	Ex6	chr7	140501210	140501362	NM_004333
<i>BRAF</i>	Ex7	chr7	140500160	140500283	NM_004333
<i>BRAF</i>	Ex8	chr7	140494106	140494269	NM_004333
<i>BRAF</i>	Ex9	chr7	140487346	140487386	NM_004333
<i>BRAF</i>	Ex10	chr7	140482819	140482959	NM_004333
<i>BRAF</i>	Ex11	chr7	140481374	140481495	NM_004333
<i>BRAF</i>	Ex12	chr7	140477789	140477877	NM_004333
<i>BRAF</i>	Ex13	chr7	140476710	140476890	NM_004333
<i>BRAF</i>	Ex14	chr7	140453985	140454035	NM_004333
<i>BRAF</i>	Ex15	chr7	140453073	140453195	NM_004333
<i>BRAF</i>	Ex16	chr7	140449085	140449220	NM_004333
<i>BRAF</i>	Ex17	chr7	140439610	140439748	NM_004333
<i>BRAF</i>	Ex18	chr7	140434395	140434572	NM_004333

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Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
CDKN2A	Ex1	chr9	21974675	21974828	NM_000077
CDKN2A	Ex2	chr9	21970899	21971209	NM_000077
CDKN2A	Ex3	chr9	21968226	21968243	NM_000077
ELOC	Ex2	chr8	74871998	74872005	NM_005648
ELOC	Ex3	chr8	74868144	74868291	NM_005648
ELOC	Ex4	chr8	74858863	74859057	NM_005648
FH	Ex1	chr1	241682889	241683024	NM_000143
FH	Ex2	chr1	241680480	241680618	NM_000143
FH	Ex3	chr1	241676901	241677015	NM_000143
FH	Ex4	chr1	241675265	241675445	NM_000143
FH	Ex5	chr1	241671901	241672087	NM_000143
FH	Ex6	chr1	241669301	241669470	NM_000143
FH	Ex7	chr1	241667340	241667547	NM_000143
FH	Ex8	chr1	241665741	241665872	NM_000143
FH	Ex9	chr1	241663735	241663892	NM_000143
FH	Ex10	chr1	241661126	241661272	NM_000143
FLCN	Ex4	chr17	17131201	17131453	NM_144997
FLCN	Ex5	chr17	17129488	17129638	NM_144997
FLCN	Ex6	chr17	17127234	17127459	NM_144997
FLCN	Ex7	chr17	17125813	17125977	NM_144997
FLCN	Ex8	chr17	17124849	17124944	NM_144997
FLCN	Ex9	chr17	17122331	17122525	NM_144997
FLCN	Ex10	chr17	17120381	17120498	NM_144997
FLCN	Ex11	chr17	17119692	17119819	NM_144997
FLCN	Ex12	chr17	17118497	17118632	NM_144997
FLCN	Ex13	chr17	17118297	17118406	NM_144997
FLCN	Ex14	chr17	17116967	17117172	NM_144997
KRAS	Ex2	chr12	25398206	25398320	NM_033360
KRAS	Ex3	chr12	25380166	25380348	NM_033360
KRAS	Ex4	chr12	25378546	25378709	NM_033360
KRAS	Ex5	chr12	25368373	25368496	NM_033360
MET	Ex2	chr7	116339137	116340340	NM_001127500
MET	Ex3	chr7	116371720	116371915	NM_001127500
MET	Ex4	chr7	116380002	116380140	NM_001127500
MET	Ex5	chr7	116380904	116381081	NM_001127500
MET	Ex6	chr7	116395407	116395571	NM_001127500
MET	Ex7	chr7	116397489	116397595	NM_001127500
MET	Ex8	chr7	116397690	116397830	NM_001127500
MET	Ex9	chr7	116398511	116398676	NM_001127500

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Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>MET</i>	Ex10	chr7	116399389	116399546	NM_001127500
<i>MET</i>	Ex11	chr7	116403102	116403324	NM_001127500
<i>MET</i>	Ex12	chr7	116409697	116409847	NM_001127500
<i>MET</i>	Ex13	chr7	116411550	116411710	NM_001127500
<i>MET</i>	Ex14	chr7	116411837	116412089	NM_001127500
<i>MET</i>	Ex15	chr7	116414933	116415167	NM_001127500
<i>MET</i>	Ex16	chr7	116417441	116417525	NM_001127500
<i>MET</i>	Ex17	chr7	116418828	116419013	NM_001127500
<i>MET</i>	Ex18	chr7	116422040	116422153	NM_001127500
<i>MET</i>	Ex19	chr7	116423356	116423525	NM_001127500
<i>MET</i>	Ex20	chr7	116435707	116435847	NM_001127500
<i>MET</i>	Ex21	chr7	116435939	116436180	NM_001127500
<i>MITF</i>	Ex9	chr3	70013996	70014401	NM_000248
<i>MLH1</i>	Ex1	chr3	37035037	37035156	NM_000249
<i>MLH1</i>	Ex2	chr3	37038108	37038202	NM_000249
<i>MLH1</i>	Ex3	chr3	37042444	37042546	NM_000249
<i>MLH1</i>	Ex4	chr3	37045890	37045967	NM_000249
<i>MLH1</i>	Ex5	chr3	37048480	37048556	NM_000249
<i>MLH1</i>	Ex6	chr3	37050303	37050398	NM_000249
<i>MLH1</i>	Ex7	chr3	37053309	37053355	NM_000249
<i>MLH1</i>	Ex8	chr3	37053500	37053592	NM_000249
<i>MLH1</i>	Ex9	chr3	37055921	37056037	NM_000249
<i>MLH1</i>	Ex10	chr3	37058995	37059092	NM_000249
<i>MLH1</i>	Ex11	chr3	37061799	37061956	NM_000249
<i>MLH1</i>	Ex12	chr3	37067126	37067500	NM_000249
<i>MLH1</i>	Ex13	chr3	37070273	37070425	NM_000249
<i>MLH1</i>	Ex14	chr3	37081675	37081787	NM_000249
<i>MLH1</i>	Ex15	chr3	37083757	37083824	NM_000249
<i>MLH1</i>	Ex16	chr3	37089008	37089176	NM_000249
<i>MLH1</i>	Ex17	chr3	37090006	37090102	NM_000249
<i>MLH1</i>	Ex18	chr3	37090393	37090510	NM_000249
<i>MLH1</i>	Ex19	chr3	37091975	37092146	NM_000249
<i>MSH2</i>	Ex1	chr2	47630329	47630543	NM_000251
<i>MSH2</i>	Ex2	chr2	47635538	47635696	NM_000251
<i>MSH2</i>	Ex3	chr2	47637231	47637513	NM_000251
<i>MSH2</i>	Ex4	chr2	47639551	47639701	NM_000251
<i>MSH2</i>	Ex5	chr2	47641406	47641559	NM_000251
<i>MSH2</i>	Ex6	chr2	47643433	47643570	NM_000251
<i>MSH2</i>	Ex7	chr2	47656879	47657082	NM_000251

Targeted Genes and Methodology Details for MayoComplete Kidney Cancer Panel (continued)

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>MSH2</i>	Ex8	chr2	47672685	47672798	NM_000251
<i>MSH2</i>	Ex9	chr2	47690168	47690295	NM_000251
<i>MSH2</i>	Ex10	chr2	47693795	47693949	NM_000251
<i>MSH2</i>	Ex11	chr2	47698102	47698203	NM_000251
<i>MSH2</i>	Ex12	chr2	47702162	47702411	NM_000251
<i>MSH2</i>	Ex13	chr2	47703504	47703712	NM_000251
<i>MSH2</i>	Ex14	chr2	47705409	47705660	NM_000251
<i>MSH2</i>	Ex15	chr2	47707833	47708012	NM_000251
<i>MSH2</i>	Ex16	chr2	47709916	47710090	NM_000251
<i>MSH6</i>	Ex1	chr2	48010371	48010634	NM_000179
<i>MSH6</i>	Ex2	chr2	48018064	48018264	NM_000179
<i>MSH6</i>	Ex3	chr2	48023031	48023204	NM_000179
<i>MSH6</i>	Ex4	chr2	48025748	48028296	NM_000179
<i>MSH6</i>	Ex5	chr2	48030557	48030826	NM_000179
<i>MSH6</i>	Ex6	chr2	48032047	48032168	NM_000179
<i>MSH6</i>	Ex7	chr2	48032755	48032848	NM_000179
<i>MSH6</i>	Ex8	chr2	48033341	48033499	NM_000179
<i>MSH6</i>	Ex9	chr2	48033589	48033792	NM_000179
<i>MSH6</i>	Ex10	chr2	48033916	48034001	NM_000179
<i>MTOR</i>	Ex2	chr1	11319303	11319468	NM_004958
<i>MTOR</i>	Ex3	chr1	11318540	11318652	NM_004958
<i>MTOR</i>	Ex4	chr1	11316988	11317224	NM_004958
<i>MTOR</i>	Ex5	chr1	11316047	11316251	NM_004958
<i>MTOR</i>	Ex6	chr1	11313894	11314032	NM_004958
<i>MTOR</i>	Ex7	chr1	11307874	11308153	NM_004958
<i>MTOR</i>	Ex8	chr1	11307680	11307792	NM_004958
<i>MTOR</i>	Ex9	chr1	11303169	11303359	NM_004958
<i>MTOR</i>	Ex10	chr1	11301608	11301740	NM_004958
<i>MTOR</i>	Ex11	chr1	11300358	11300606	NM_004958
<i>MTOR</i>	Ex12	chr1	11298457	11298676	NM_004958
<i>MTOR</i>	Ex13	chr1	11297898	11298107	NM_004958
<i>MTOR</i>	Ex14	chr1	11294198	11294324	NM_004958
<i>MTOR</i>	Ex15	chr1	11293453	11293546	NM_004958
<i>MTOR</i>	Ex16	chr1	11292491	11292587	NM_004958
<i>MTOR</i>	Ex17	chr1	11291355	11291493	NM_004958
<i>MTOR</i>	Ex18	chr1	11290980	11291113	NM_004958
<i>MTOR</i>	Ex19	chr1	11288723	11288977	NM_004958
<i>MTOR</i>	Ex20	chr1	11276203	11276293	NM_004958
<i>MTOR</i>	Ex21	chr1	11273454	11273625	NM_004958

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Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
MTOR	Ex22	chr1	11272851	11272967	NM_004958
MTOR	Ex23	chr1	11272367	11272533	NM_004958
MTOR	Ex24	chr1	11270869	11270965	NM_004958
MTOR	Ex25	chr1	11269367	11269517	NM_004958
MTOR	Ex26	chr1	11264616	11264762	NM_004958
MTOR	Ex27	chr1	11259596	11259762	NM_004958
MTOR	Ex28	chr1	11259313	11259462	NM_004958
MTOR	Ex29	chr1	11227497	11227576	NM_004958
MTOR	Ex30	chr1	11217207	11217350	NM_004958
MTOR	Ex31	chr1	11210181	11210285	NM_004958
MTOR	Ex32	chr1	11206731	11206850	NM_004958
MTOR	Ex33	chr1	11205023	11205104	NM_004958
MTOR	Ex34	chr1	11204703	11204814	NM_004958
MTOR	Ex35	chr1	11199588	11199717	NM_004958
MTOR	Ex36	chr1	11199359	11199494	NM_004958
MTOR	Ex37	chr1	11194406	11194525	NM_004958
MTOR	Ex38	chr1	11193135	11193256	NM_004958
MTOR	Ex39	chr1	11190584	11190836	NM_004958
MTOR	Ex40	chr1	11189793	11189897	NM_004958
MTOR	Ex41	chr1	11188910	11189010	NM_004958
MTOR	Ex42	chr1	11188509	11188611	NM_004958
MTOR	Ex43	chr1	11188059	11188185	NM_004958
MTOR	Ex44	chr1	11187679	11187865	NM_004958
MTOR	Ex45	chr1	11187065	11187203	NM_004958
MTOR	Ex46	chr1	11186677	11186855	NM_004958
MTOR	Ex47	chr1	11184553	11184692	NM_004958
MTOR	Ex48	chr1	11182034	11182185	NM_004958
MTOR	Ex49	chr1	11181301	11181427	NM_004958
MTOR	Ex50	chr1	11177059	11177145	NM_004958
MTOR	Ex51	chr1	11175451	11175527	NM_004958
MTOR	Ex52	chr1	11174868	11174946	NM_004958
MTOR	Ex53	chr1	11174373	11174512	NM_004958
MTOR	Ex54	chr1	11172907	11172976	NM_004958
MTOR	Ex55	chr1	11169704	11169788	NM_004958
MTOR	Ex56	chr1	11169345	11169429	NM_004958
MTOR	Ex57	chr1	11168236	11168345	NM_004958
MTOR	Ex58	chr1	11167540	11167559	NM_004958
NF2	Ex1	chr22	29999986	30000103	NM_000268
NF2	Ex2	chr22	30032738	30032867	NM_000268

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Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
NF2	Ex3	chr22	30035077	30035203	NM_000268
NF2	Ex4	chr22	30038189	30038276	NM_000268
NF2	Ex5	chr22	30050644	30050716	NM_000268
NF2	Ex6	chr22	30051581	30051667	NM_000268
NF2	Ex7	chr22	30054176	30054255	NM_000268
NF2	Ex8	chr22	30057192	30057330	NM_000268
NF2	Ex9	chr22	30060977	30061055	NM_000268
NF2	Ex10	chr22	30064320	30064437	NM_000268
NF2	Ex11	chr22	30067813	30067939	NM_000268
NF2	Ex12	chr22	30069256	30069477	NM_000268
NF2	Ex13	chr22	30070823	30070932	NM_000268
NF2	Ex14	chr22	30074183	30074314	NM_000268
NF2	Ex15	chr22	30077426	30077592	NM_000268
NF2	Ex16	chr22	30090739	30090793	NM_000268
PBRM1	Ex3	chr3	52713588	52713729	NM_181042
PBRM1	Ex4	chr3	52712514	52712615	NM_181042
PBRM1	Ex5	chr3	52702512	52702663	NM_181042
PBRM1	Ex6	chr3	52696147	52696294	NM_181042
PBRM1	Ex7	chr3	52692213	52692333	NM_181042
PBRM1	Ex8	chr3	52685756	52685828	NM_181042
PBRM1	Ex9	chr3	52682358	52682460	NM_181042
PBRM1	Ex10	chr3	52678718	52678807	NM_181042
PBRM1	Ex11	chr3	52677262	52677361	NM_181042
PBRM1	Ex12	chr3	52675968	52676063	NM_181042
PBRM1	Ex13	chr3	52668616	52668833	NM_181042
PBRM1	Ex14	chr3	52662908	52663053	NM_181042
PBRM1	Ex15	chr3	52661287	52661388	NM_181042
PBRM1	Ex16	chr3	52651276	52651556	NM_181042
PBRM1	Ex17	chr3	52649365	52649474	NM_181042
PBRM1	Ex18	chr3	52643327	52643973	NM_181042
PBRM1	Ex19	chr3	52637535	52637750	NM_181042
PBRM1	Ex20	chr3	52623084	52623273	NM_181042
PBRM1	Ex21	chr3	52621367	52621528	NM_181042
PBRM1	Ex22	chr3	52620439	52620706	NM_181042
PBRM1	Ex23	chr3	52613068	52613217	NM_181042
PBRM1	Ex24	chr3	52610555	52610716	NM_181042
PBRM1	Ex25	chr3	52598064	52598251	NM_181042
PBRM1	Ex26	chr3	52597297	52597511	NM_181042
PBRM1	Ex27	chr3	52595781	52595986	NM_181042

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Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>PBRM1</i>	Ex28	chr3	52584761	52584835	NM_181042
<i>PBRM1</i>	Ex29	chr3	52584435	52584655	NM_181042
<i>PBRM1</i>	Ex30	chr3	52582077	52582253	NM_181042
<i>PMS2</i>	Ex1	chr7	6048626	6048652	NM_000535
<i>PMS2</i>	Ex2	chr7	6045521	6045664	NM_000535
<i>PMS2</i>	Ex3	chr7	6043601	6043691	NM_000535
<i>PMS2</i>	Ex4	chr7	6043319	6043425	NM_000535
<i>PMS2</i>	Ex5	chr7	6042082	6042269	NM_000535
<i>PMS2</i>	Ex6	chr7	6038737	6038908	NM_000535
<i>PMS2</i>	Ex7	chr7	6036955	6037056	NM_000535
<i>PMS2</i>	Ex8	chr7	6035163	6035266	NM_000535
<i>PMS2</i>	Ex9	chr7	6031602	6031690	NM_000535
<i>PMS2</i>	Ex10	chr7	6029429	6029588	NM_000535
<i>PMS2</i>	Ex11	chr7	6026388	6027253	NM_000535
<i>PMS2</i>	Ex12	chr7	6022453	6022624	NM_000535
<i>PMS2</i>	Ex13	chr7	6018225	6018329	NM_000535
<i>PMS2</i>	Ex14	chr7	6017217	6017390	NM_000535
<i>PMS2</i>	Ex15	chr7	6013028	6013175	NM_000535
<i>PTEN</i>	Ex1	chr10	89624225	89624307	NM_000314
<i>PTEN</i>	Ex2	chr10	89653780	89653868	NM_000314
<i>PTEN</i>	Ex3	chr10	89685268	89685316	NM_000314
<i>PTEN</i>	Ex4	chr10	89690801	89690848	NM_000314
<i>PTEN</i>	Ex5	chr10	89692768	89693010	NM_000314
<i>PTEN</i>	Ex6	chr10	89711873	89712018	NM_000314
<i>PTEN</i>	Ex7	chr10	89717608	89717778	NM_000314
<i>PTEN</i>	Ex8	chr10	89720649	89720877	NM_000314
<i>RB1</i>	Ex1	chr13	48878047	48878187	NM_000321
<i>RB1</i>	Ex2	chr13	48881414	48881544	NM_000321
<i>RB1</i>	Ex3	chr13	48916733	48916852	NM_000321
<i>RB1</i>	Ex4	chr13	48919214	48919337	NM_000321
<i>RB1</i>	Ex5	chr13	48921959	48922001	NM_000321
<i>RB1</i>	Ex6	chr13	48923090	48923161	NM_000321
<i>RB1</i>	Ex7	chr13	48934151	48934265	NM_000321
<i>RB1</i>	Ex8	chr13	48936949	48937095	NM_000321
<i>RB1</i>	Ex9	chr13	48939028	48939109	NM_000321
<i>RB1</i>	Ex10	chr13	48941628	48941741	NM_000321
<i>RB1</i>	Ex11	chr13	48942661	48942742	NM_000321
<i>RB1</i>	Ex12	chr13	48947539	48947630	NM_000321
<i>RB1</i>	Ex13	chr13	48951052	48951172	NM_000321

Targeted Genes and Methodology Details for MayoComplete Kidney Cancer Panel (continued)

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>RB1</i>	Ex14	chr13	48953728	48953788	NM_000321
<i>RB1</i>	Ex16	chr13	48954299	48954379	NM_000321
<i>RB1</i>	Ex17	chr13	48955381	48955581	NM_000321
<i>RB1</i>	Ex18	chr13	49027127	49027249	NM_000321
<i>RB1</i>	Ex19	chr13	49030338	49030487	NM_000321
<i>RB1</i>	Ex20	chr13	49033822	49033971	NM_000321
<i>RB1</i>	Ex21	chr13	49037865	49037973	NM_000321
<i>RB1</i>	Ex22	chr13	49039132	49039249	NM_000321
<i>RB1</i>	Ex23	chr13	49039339	49039506	NM_000321
<i>RB1</i>	Ex24	chr13	49047494	49047528	NM_000321
<i>RB1</i>	Ex25	chr13	49050835	49050981	NM_000321
<i>RB1</i>	Ex26	chr13	49051489	49051542	NM_000321
<i>RB1</i>	Ex27	chr13	49054132	49054209	NM_000321
<i>SDHA</i>	Ex1	chr5	218469	218535	NM_004168
<i>SDHA</i>	Ex2	chr5	223595	223685	NM_004168
<i>SDHA</i>	Ex3	chr5	224473	224638	NM_004168
<i>SDHA</i>	Ex4	chr5	225532	225679	NM_004168
<i>SDHA</i>	Ex5	chr5	225996	226164	NM_004168
<i>SDHA</i>	Ex6	chr5	228298	228450	NM_004168
<i>SDHA</i>	Ex7	chr5	230989	231117	NM_004168
<i>SDHA</i>	Ex8	chr5	233590	233762	NM_004168
<i>SDHA</i>	Ex9	chr5	235257	235456	NM_004168
<i>SDHA</i>	Ex11	chr5	240471	240593	NM_004168
<i>SDHA</i>	Ex12	chr5	251105	251220	NM_004168
<i>SDHB</i>	Ex1	chr1	17380441	17380516	NM_003000
<i>SDHB</i>	Ex2	chr1	17371254	17371385	NM_003000
<i>SDHB</i>	Ex3	chr1	17359553	17359642	NM_003000
<i>SDHB</i>	Ex4	chr1	17355093	17355233	NM_003000
<i>SDHB</i>	Ex5	chr1	17354242	17354362	NM_003000
<i>SDHB</i>	Ex6	chr1	17350466	17350571	NM_003000
<i>SDHB</i>	Ex7	chr1	17349101	17349227	NM_003000
<i>SDHB</i>	Ex8	chr1	17345374	17345455	NM_003000
<i>SDHC</i>	Ex1	chr1	161284194	161284217	NM_003001
<i>SDHC</i>	Ex2	chr1	161293402	161293462	NM_003001
<i>SDHC</i>	Ex3	chr1	161298184	161298289	NM_003001
<i>SDHC</i>	Ex4	chr1	161310382	161310447	NM_003001
<i>SDHC</i>	Ex5	chr1	161326465	161326632	NM_003001
<i>SDHD</i>	Ex1	chr11	111957630	111957685	NM_003002
<i>SDHD</i>	Ex2	chr11	111958579	111958699	NM_003002

Targeted Genes and Methodology Details for MayoComplete Kidney Cancer Panel (continued)

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>SDHD</i>	Ex3	chr11	111959589	111959737	NM_003002
<i>SDHD</i>	Ex4	chr11	111965527	111965696	NM_003002
<i>SETD2</i>	Ex1	chr3	47205342	47205416	NM_014159
<i>SETD2</i>	Ex2	chr3	47168136	47168155	NM_014159
<i>SETD2</i>	Ex3	chr3	47161670	47166040	NM_014159
<i>SETD2</i>	Ex4	chr3	47158111	47158246	NM_014159
<i>SETD2</i>	Ex5	chr3	47155364	47155496	NM_014159
<i>SETD2</i>	Ex6	chr3	47147485	47147612	NM_014159
<i>SETD2</i>	Ex7	chr3	47144834	47144915	NM_014159
<i>SETD2</i>	Ex8	chr3	47142946	47143047	NM_014159
<i>SETD2</i>	Ex9	chr3	47139443	47139573	NM_014159
<i>SETD2</i>	Ex10	chr3	47129601	47129739	NM_014159
<i>SETD2</i>	Ex11	chr3	47127683	47127806	NM_014159
<i>SETD2</i>	Ex12	chr3	47125208	47125874	NM_014159
<i>SETD2</i>	Ex13	chr3	47108558	47108610	NM_014159
<i>SETD2</i>	Ex14	chr3	47103651	47103838	NM_014159
<i>SETD2</i>	Ex15	chr3	47098309	47098982	NM_014159
<i>SETD2</i>	Ex16	chr3	47087975	47088113	NM_014159
<i>SETD2</i>	Ex17	chr3	47084049	47084192	NM_014159
<i>SETD2</i>	Ex18	chr3	47079154	47079269	NM_014159
<i>SETD2</i>	Ex19	chr3	47061248	47061332	NM_014159
<i>SETD2</i>	Ex20	chr3	47059126	47059231	NM_014159
<i>SETD2</i>	Ex21	chr3	47058581	47058746	NM_014159
<i>SMARCB1</i>	Ex1	chr22	24129355	24129451	NM_003073
<i>SMARCB1</i>	Ex2	chr22	24133941	24134083	NM_003073
<i>SMARCB1</i>	Ex3	chr22	24135744	24135877	NM_003073
<i>SMARCB1</i>	Ex4	chr22	24143129	24143270	NM_003073
<i>SMARCB1</i>	Ex5	chr22	24145480	24145611	NM_003073
<i>SMARCB1</i>	Ex6	chr22	24158955	24159125	NM_003073
<i>SMARCB1</i>	Ex7	chr22	24167410	24167604	NM_003073
<i>SMARCB1</i>	Ex8	chr22	24175757	24175892	NM_003073
<i>SMARCB1</i>	Ex9	chr22	24176326	24176369	NM_003073
<i>TERT</i>	Promoter	chr5	1295128	1295350	NM_198253
<i>TP53</i>	Ex2	chr17	7579837	7579914	NM_000546
<i>TP53</i>	Ex3	chr17	7579698	7579723	NM_000546
<i>TP53</i>	Ex4	chr17	7579310	7579592	NM_000546
<i>TP53</i>	Ex5	chr17	7578369	7578556	NM_000546
<i>TP53</i>	Ex6	chr17	7578175	7578291	NM_000546
<i>TP53</i>	Ex7	chr17	7577497	7577610	NM_000546

Targeted Genes and Methodology Details for MayoComplete Kidney Cancer Panel (continued)

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>TP53</i>	Ex8	chr17	7577017	7577157	NM_000546
<i>TP53</i>	Ex9	chr17	7576851	7576928	NM_000546
<i>TP53</i>	Ex10	chr17	7573925	7574035	NM_000546
<i>TP53</i>	Ex11	chr17	7572925	7573010	NM_000546
<i>TSC1</i>	Ex3	chr9	135804152	135804261	NM_000368
<i>TSC1</i>	Ex4	chr9	135802586	135802693	NM_000368
<i>TSC1</i>	Ex5	chr9	135800972	135801128	NM_000368
<i>TSC1</i>	Ex6	chr9	135798733	135798881	NM_000368
<i>TSC1</i>	Ex7	chr9	135797204	135797362	NM_000368
<i>TSC1</i>	Ex8	chr9	135796748	135796825	NM_000368
<i>TSC1</i>	Ex9	chr9	135787667	135787846	NM_000368
<i>TSC1</i>	Ex10	chr9	135786838	135786957	NM_000368
<i>TSC1</i>	Ex11	chr9	135786387	135786502	NM_000368
<i>TSC1</i>	Ex12	chr9	135785956	135786081	NM_000368
<i>TSC1</i>	Ex13	chr9	135782686	135782759	NM_000368
<i>TSC1</i>	Ex14	chr9	135782116	135782224	NM_000368
<i>TSC1</i>	Ex15	chr9	135780966	135781528	NM_000368
<i>TSC1</i>	Ex16	chr9	135779796	135779843	NM_000368
<i>TSC1</i>	Ex17	chr9	135779036	135779206	NM_000368
<i>TSC1</i>	Ex18	chr9	135777990	135778176	NM_000368
<i>TSC1</i>	Ex19	chr9	135776974	135777088	NM_000368
<i>TSC1</i>	Ex20	chr9	135776100	135776226	NM_000368
<i>TSC1</i>	Ex21	chr9	135772808	135772999	NM_000368
<i>TSC1</i>	Ex22	chr9	135772569	135772734	NM_000368
<i>TSC1</i>	Ex23	chr9	135772011	135772143	NM_000368
<i>TSC1</i>	Ex23	chr9	135771620	135771984	NM_000368
<i>TSC2</i>	Ex2	chr16	2098615	2098756	NM_000548
<i>TSC2</i>	Ex3	chr16	2100399	2100489	NM_000548
<i>TSC2</i>	Ex4	chr16	2103341	2103455	NM_000548
<i>TSC2</i>	Ex5	chr16	2104295	2104443	NM_000548
<i>TSC2</i>	Ex6	chr16	2105401	2105522	NM_000548
<i>TSC2</i>	Ex7	chr16	2106195	2106247	NM_000548
<i>TSC2</i>	Ex8	chr16	2106643	2106772	NM_000548
<i>TSC2</i>	Ex9	chr16	2107104	2107181	NM_000548
<i>TSC2</i>	Ex10	chr16	2108746	2108876	NM_000548
<i>TSC2</i>	Ex11	chr16	2110669	2110816	NM_000548
<i>TSC2</i>	Ex12	chr16	2111870	2112011	NM_000548
<i>TSC2</i>	Ex13	chr16	2112496	2112603	NM_000548
<i>TSC2</i>	Ex14	chr16	2112971	2113056	NM_000548

Targeted Genes and Methodology Details for MayoComplete Kidney Cancer Panel (continued)

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
<i>TSC2</i>	Ex15	chr16	2114271	2114430	NM_000548
<i>TSC2</i>	Ex16	chr16	2115518	2115638	NM_000548
<i>TSC2</i>	Ex17	chr16	2120455	2120581	NM_000548
<i>TSC2</i>	Ex18	chr16	2121509	2121619	NM_000548
<i>TSC2</i>	Ex19	chr16	2121783	2121937	NM_000548
<i>TSC2</i>	Ex20	chr16	2122240	2122366	NM_000548
<i>TSC2</i>	Ex21	chr16	2122848	2122986	NM_000548
<i>TSC2</i>	Ex22	chr16	2124199	2124392	NM_000548
<i>TSC2</i>	Ex23	chr16	2125798	2125895	NM_000548
<i>TSC2</i>	Ex24	chr16	2126067	2126173	NM_000548
<i>TSC2</i>	Ex25	chr16	2126490	2126588	NM_000548
<i>TSC2</i>	Ex26	chr16	2127597	2127729	NM_000548
<i>TSC2</i>	Ex27	chr16	2129031	2129199	NM_000548
<i>TSC2</i>	Ex28	chr16	2129275	2129431	NM_000548
<i>TSC2</i>	Ex29	chr16	2129556	2129672	NM_000548
<i>TSC2</i>	Ex30	chr16	2130164	2130380	NM_000548
<i>TSC2</i>	Ex31	chr16	2131594	2131801	NM_000548
<i>TSC2</i>	Ex32	chr16	2132435	2132507	NM_000548
<i>TSC2</i>	Ex33	chr16	2133694	2133819	NM_000548
<i>TSC2</i>	Ex34	chr16	2134227	2134718	NM_000548
<i>TSC2</i>	Ex35	chr16	2134950	2135029	NM_000548
<i>TSC2</i>	Ex36	chr16	2135229	2135325	NM_000548
<i>TSC2</i>	Ex37	chr16	2136192	2136382	NM_000548
<i>TSC2</i>	Ex38	chr16	2136731	2136874	NM_000548
<i>TSC2</i>	Ex39	chr16	2137862	2137944	NM_000548
<i>TSC2</i>	Ex40	chr16	2138047	2138142	NM_000548
<i>TSC2</i>	Ex41	chr16	2138226	2138328	NM_000548
<i>TSC2</i>	Ex42	chr16	2138445	2138613	NM_000548
<i>VHL</i>	Ex1	chr3	10183530	10183873	NM_000551
<i>VHL</i>	Ex2	chr3	10188196	10188322	NM_000551
<i>VHL</i>	Ex3	chr3	10191469	10191651	NM_000551