

Supplementary Table S1. *PIK3CA* mutations in breast cancer from the COSMIC database.

Sample Name	Sampple ID	Tumor ID	Mutation CDS	Mutation AA	Mutation Description	GRCh37 Genome Position
42	1860499	1751440	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
52	1860501	1751442	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
99	1860497	1751438	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
BC6	1280972	1192263	c.?	p.H1047R	Substitution - Missense	
BB5T	1430379	1339793	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
BC32	1280998	1192289	c.?	p.H1047R	Substitution - Missense	
BC52	1281018	1192309	c.?	p.H1047R	Substitution - Missense	
BC60	1281026	1192317	c.?	p.H1047R	Substitution - Missense	
BC78	1281044	1192335	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
BT20	1018465	935623	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BT20	1018465	935623	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
T47D	1046942	963173	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MCF-7	1183770	1095741	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
SA074	1659952	1574280	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
SA217	1659987	1574315	c.309_317delACCAGTAGG	p.E103_G106>D	Complex - deletion inframe	3:178916922-178916930
104104	1520445	1442820	c.1034A>T	p.N345I	Substitution - Missense	3:178921552-178921552
107077	1520523	1442898	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
107395	1520514	1442889	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
107414	1520599	1442974	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
107535	1520450	1442825	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
107539	1520462	1442837	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
107738	1520438	1442813	c.3127A>G	p.M1043V	Substitution - Missense	3:178952072-178952072
111664	1520561	1442936	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901515	901515	819127	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901517	901517	819129	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904403	904403	821948	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
904405	904405	821950	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
904408	904408	821953	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
904411	904411	821956	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
904414	904414	821959	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
904426	904426	821971	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904428	904428	821973	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904433	904433	821978	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904439	904439	821984	c.3127A>G	p.M1043V	Substitution - Missense	3:178952072-178952072
904445	904445	821990	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904449	904449	821994	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904451	904451	821996	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904453	904453	821998	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904460	904460	822005	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904470	904470	822015	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904471	904471	822016	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

904472	904472	822017	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
904476	904476	822021	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
BT-483	904352	821897	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
E28511	762928	684108	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E39838	894049	811817	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E39852	894063	811831	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E39867	894078	811846	c.328G>A	p.E110K	Substitution - Missense	3:178916941-178916941
E40045	894097	811865	c.1214C>T	p.S405F	Substitution - Missense	3:178927451-178927451
E40047	894099	811867	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
E40053	894105	811873	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
E40058	894110	811878	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
EFM-19	2165019	2033431	c.?	p.H1047L	Substitution - Missense	
HCC202	2165008	2033420	c.?	p.E545K	Substitution - Missense	
1017175	1017175	934345	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1017180	1017180	934350	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1017182	1017182	934352	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1017186	1017186	934356	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1017187	1017187	934357	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017842	1017842	935000	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1017846	1017846	935004	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1017849	1017849	935007	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017852	1017852	935010	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017855	1017855	935013	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017856	1017856	935014	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017894	1017894	935052	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018387	1018387	935545	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018391	1018391	935549	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018397	1018397	935555	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018402	1018402	935560	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1018405	1018405	935563	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1018408	1018408	935566	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1018410	1018410	935568	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1018911	1018911	935934	c.3075C>T	p.T1025T	Substitution - coding silent	3:178952020-178952020
1018915	1018915	935938	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1018920	1018920	935943	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1122682	1122682	1035726	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1122687	1122687	1035731	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124114	1124114	1037157	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124237	1124237	1037280	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1124246	1124246	1037289	c.1636C>G	p.Q546E	Substitution - Missense	3:178936094-178936094
1124256	1124256	1037299	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124263	1124263	1037306	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124383	1124383	1037426	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082

1124387	1124387	1037430	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1124400	1124400	1037443	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124403	1124403	1037446	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124404	1124404	1037447	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124405	1124405	1037448	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1124416	1124416	1037459	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124421	1124421	1037464	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124425	1124425	1037468	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124601	1124601	1037644	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124604	1124604	1037647	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124609	1124609	1037652	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124612	1124612	1037655	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1134424	1134424	1047084	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1134433	1134433	1047093	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1134439	1134439	1047099	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135797	1135797	1048361	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135799	1135799	1048363	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135805	1135805	1048369	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135812	1135812	1048376	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135814	1135814	1048378	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135818	1135818	1048382	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135824	1135824	1048388	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135826	1135826	1048390	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135830	1135830	1048394	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135849	1135849	1048413	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135851	1135851	1048415	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135857	1135857	1048421	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135862	1135862	1048426	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1135868	1135868	1048432	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135876	1135876	1048440	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135886	1135886	1048450	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135887	1135887	1048451	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135892	1135892	1048456	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135895	1135895	1048459	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135904	1135904	1048468	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1176653	1176653	1088650	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1176654	1176654	1088651	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1176657	1176657	1088654	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1176680	1176680	1088677	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193503	1193503	1105399	c.?	p.H1047R	Substitution - Missense	
1193513	1193513	1105409	c.?	p.H1047R	Substitution - Missense	
1193514	1193514	1105410	c.?	p.H1047R	Substitution - Missense	
1193520	1193520	1105416	c.?	p.H1047R	Substitution - Missense	

1193521	1193521	1105417	c.?	p.H1047R	Substitution - Missense	
1193524	1193524	1105420	c.?	p.H1047R	Substitution - Missense	
1193529	1193529	1105425	c.?	p.H1047R	Substitution - Missense	
1193541	1193541	1105437	c.?	p.H1047R	Substitution - Missense	
1193542	1193542	1105438	c.?	p.H1047R	Substitution - Missense	
1193543	1193543	1105439	c.?	p.H1047R	Substitution - Missense	
1193549	1193549	1105445	c.?	p.G1049R	Substitution - Missense	
1193553	1193553	1105449	c.?	p.E545K	Substitution - Missense	
1193555	1193555	1105451	c.?	p.E545K	Substitution - Missense	
1193564	1193564	1105460	c.?	p.E545K	Substitution - Missense	
1193568	1193568	1105464	c.?	p.E545K	Substitution - Missense	
1193571	1193571	1105467	c.?	p.E542K	Substitution - Missense	
1212751	1212751	1124618	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212752	1212752	1124619	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212753	1212753	1124620	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212765	1212765	1124632	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244777	1244777	1156483	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
1244781	1244781	1156487	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
1244783	1244783	1156489	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244788	1244788	1156494	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244791	1244791	1156497	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244795	1244795	1156501	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244804	1244804	1156510	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244810	1244810	1156516	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244815	1244815	1156521	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244819	1244819	1156525	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244830	1244830	1156536	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244831	1244831	1156537	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244836	1244836	1156542	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244843	1244843	1156549	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1244847	1244847	1156553	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1244860	1244860	1156566	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244865	1244865	1156571	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244868	1244868	1156574	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244869	1244869	1156575	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244870	1244870	1156576	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244872	1244872	1156578	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244878	1244878	1156584	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244888	1244888	1156594	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244889	1244889	1156595	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244892	1244892	1156598	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244895	1244895	1156601	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244915	1244915	1156621	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1244923	1244923	1156629	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244936	1244936	1156642	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244943	1244943	1156649	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1278872	1278872	1190168	c.?	p.E545K	Substitution - Missense	
1278875	1278875	1190171	c.?	p.H1047R	Substitution - Missense	
1278879	1278879	1190175	c.?	p.H1047R	Substitution - Missense	
1297167	1297167	1208221	c.?	p.E542K	Substitution - Missense	
1301924	1301924	1212975	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1301927	1301927	1212978	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1301937	1301937	1212988	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1301959	1301959	1213010	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301960	1301960	1213011	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301961	1301961	1213012	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301964	1301964	1213015	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301968	1301968	1213019	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301974	1301974	1213025	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301982	1301982	1213033	c.3143A>G	p.H1048R	Substitution - Missense	3:178952088-178952088
1301982	1301982	1213033	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1302097	1302097	1213148	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1312215	1312215	1223124	c.?	p.H1047R	Substitution - Missense	
1312221	1312221	1223130	c.?	p.H1047R	Substitution - Missense	
1312225	1312225	1223134	c.?	p.E545K	Substitution - Missense	
1312246	1312246	1223155	c.?	p.H1047L	Substitution - Missense	
1312247	1312247	1223156	c.?	p.E545K	Substitution - Missense	
1321112	1321112	1231999	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1321116	1321116	1232003	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1321130	1321130	1232017	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321135	1321135	1232022	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329566	1329566	1240051	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1329574	1329574	1240059	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329587	1329587	1240072	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329589	1329589	1240074	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329590	1329590	1240075	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329591	1329591	1240076	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329592	1329592	1240077	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329593	1329593	1240078	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329604	1329604	1240089	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329607	1329607	1240092	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329720	1329720	1240205	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329721	1329721	1240206	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329722	1329722	1240207	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329725	1329725	1240210	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1329727	1329727	1240212	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094

1329732	1329732	1240217	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329735	1329735	1240220	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329737	1329737	1240222	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329744	1329744	1240229	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329752	1329752	1240237	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
1329813	1329813	1240298	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1329817	1329817	1240302	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329818	1329818	1240303	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329826	1329826	1240311	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329904	1329904	1240389	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329907	1329907	1240392	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419228	1419228	1329269	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419232	1419232	1329273	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419233	1419233	1329274	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419237	1419237	1329278	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419238	1419238	1329279	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419240	1419240	1329281	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419255	1419255	1329296	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1419256	1419256	1329297	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1419257	1419257	1329298	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1419269	1419269	1329310	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1419270	1419270	1329311	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1425136	1425136	1335164	c.?	p.E545K	Substitution - Missense	
1425160	1425160	1335188	c.?	p.H1047R	Substitution - Missense	
1425161	1425161	1335189	c.?	p.H1047R	Substitution - Missense	
1425172	1425172	1335200	c.?	p.R38H	Substitution - Missense	
1435082	1435082	1344440	c.?	p.H1047R	Substitution - Missense	
1435084	1435084	1344442	c.?	p.E545K	Substitution - Missense	
1443608	1443608	1367853	c.?	p.H1047R	Substitution - Missense	
1443610	1443610	1367855	c.?	p.H1047R	Substitution - Missense	
1443623	1443623	1367868	c.?	p.H1047R	Substitution - Missense	
1443636	1443636	1367881	c.?	p.H1047R	Substitution - Missense	
1443697	1443697	1367942	c.?	p.E542K	Substitution - Missense	
1443702	1443702	1367947	c.?	p.H1047L	Substitution - Missense	
1443706	1443706	1367951	c.?	p.H1047R	Substitution - Missense	
1443718	1443718	1367963	c.?	p.H1047R	Substitution - Missense	
1443719	1443719	1367964	c.?	p.H1047R	Substitution - Missense	
1443720	1443720	1367965	c.?	p.H1047R	Substitution - Missense	
1443723	1443723	1367968	c.?	p.H1047R	Substitution - Missense	
1443727	1443727	1367972	c.?	p.H1047R	Substitution - Missense	
1443729	1443729	1367974	c.?	p.H1047R	Substitution - Missense	
1443747	1443747	1367992	c.?	p.H1047R	Substitution - Missense	
1443751	1443751	1367996	c.?	p.H1047R	Substitution - Missense	

1443752	1443752	1367997	c.?	p.H1047R	Substitution - Missense	
1443910	1443910	1368155	c.?	p.H1047R	Substitution - Missense	
1443911	1443911	1368156	c.?	p.H1047R	Substitution - Missense	
1530111	1530111	1452483	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1530127	1530127	1452499	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1657027	1657027	1571682	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657028	1657028	1571683	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657030	1657030	1571685	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657032	1657032	1571687	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657035	1657035	1571690	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657039	1657039	1571694	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657041	1657041	1571696	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657042	1657042	1571697	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657043	1657043	1571698	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657046	1657046	1571701	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657047	1657047	1571702	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1659239	1659239	1573569	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1659240	1659240	1573570	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1665032	1665032	1578482	c.3154A>G	p.T1052A	Substitution - Missense	3:178952099-178952099
1670194	1670194	1583480	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1670195	1670195	1583481	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1670197	1670197	1583483	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670201	1670201	1583487	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1670206	1670206	1583492	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670210	1670210	1583496	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670218	1670218	1583504	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670219	1670219	1583505	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670300	1670300	1583586	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1670303	1670303	1583589	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670304	1670304	1583590	c.3136G>A	p.A1046T	Substitution - Missense	3:178952081-178952081
1670304	1670304	1583590	c.1636C>G	p.Q546E	Substitution - Missense	3:178936094-178936094
1670320	1670320	1583606	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670322	1670322	1583608	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675739	1675739	1588616	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675750	1675750	1588621	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675754	1675754	1588623	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676176	1676176	1588948	c.?	p.H1047R	Substitution - Missense	
1676260	1676260	1589032	c.?	p.H1047R	Substitution - Missense	
1676261	1676261	1589033	c.?	p.H1047R	Substitution - Missense	
1676276	1676276	1589048	c.?	p.E545K	Substitution - Missense	
1676276	1676276	1589048	c.?	p.H1047R	Substitution - Missense	
1691697	1691697	1599963	c.?	p.E545K	Substitution - Missense	
1691700	1691700	1599966	c.?	p.E545K	Substitution - Missense	

1691701	1691701	1599967	c.?	p.E545K	Substitution - Missense	
1691702	1691702	1599968	c.?	p.E545K	Substitution - Missense	
1691708	1691708	1599974	c.?	p.H1047R	Substitution - Missense	
1691712	1691712	1599978	c.?	p.H1047R	Substitution - Missense	
1691735	1691735	1600001	c.?	p.H1047R	Substitution - Missense	
1691737	1691737	1600003	c.?	p.H1047R	Substitution - Missense	
1691739	1691739	1600005	c.?	p.H1047R	Substitution - Missense	
1691742	1691742	1600008	c.?	p.H1047R	Substitution - Missense	
1691744	1691744	1600010	c.?	p.H1047R	Substitution - Missense	
1692039	1692039	1600304	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1692051	1692051	1600316	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1698509	1698509	1606627	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1698513	1698513	1606631	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698522	1698522	1606640	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1698530	1698530	1606648	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
1698534	1698534	1606652	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1698537	1698537	1606655	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1698836	1698836	1606954	c.?	p.E542K	Substitution - Missense	
1698841	1698841	1606959	c.?	p.E542K	Substitution - Missense	
1698846	1698846	1606964	c.?	p.E545K	Substitution - Missense	
1698848	1698848	1606966	c.?	p.E545K	Substitution - Missense	
1698855	1698855	1606973	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698858	1698858	1606976	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698863	1698863	1606981	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698864	1698864	1606982	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698865	1698865	1606983	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698874	1698874	1606992	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698890	1698890	1607008	c.?	p.H1047L	Substitution - Missense	
1703719	1703719	1611828	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1703727	1703727	1611836	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703730	1703730	1611839	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703737	1703737	1611846	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703754	1703754	1611863	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703770	1703770	1611879	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703776	1703776	1611885	c.1633G>C	p.E545Q	Substitution - Missense	3:178936091-178936091
1703777	1703777	1611886	c.1490A>G	p.N497S	Substitution - Missense	3:178928304-178928304
1703778	1703778	1611887	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1703796	1703796	1611905	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703804	1703804	1611913	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703811	1703811	1611920	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703816	1703816	1611925	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703824	1703824	1611933	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703825	1703825	1611934	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1703827	1703827	1611936	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703837	1703837	1611946	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703840	1703840	1611949	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703851	1703851	1611960	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703855	1703855	1611964	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703856	1703856	1611965	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1709207	1709207	1617113	c.?	p.E545K	Substitution - Missense	
1709225	1709225	1617131	c.?	p.E545K	Substitution - Missense	
1720266	1720266	1627546	c.?	p.Q546K	Substitution - Missense	
1720329	1720329	1627609	c.?	p.H1047L	Substitution - Missense	
1720331	1720331	1627611	c.?	p.H1047R	Substitution - Missense	
1720335	1720335	1627615	c.?	p.H1047R	Substitution - Missense	
1720340	1720340	1627620	c.?	p.E545K	Substitution - Missense	
1738895	1738895	1644726	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1738900	1738900	1644731	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1738903	1738903	1644734	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1738909	1738909	1644740	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738911	1738911	1644742	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738918	1738918	1644749	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738925	1738925	1644756	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1738927	1738927	1644758	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1739271	1739271	1644993	c.?	p.H1047R	Substitution - Missense	
1773308	1773308	1677548	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1773309	1773309	1677549	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1835026	1835026	1730058	c.?	p.H1047R	Substitution - Missense	
1835037	1835037	1730069	c.?	p.H1047R	Substitution - Missense	
1864108	1864108	1754962	c.?	p.E545A	Substitution - Missense	
1864129	1864129	1754980	c.?	p.H1047R	Substitution - Missense	
1864130	1864130	1754981	c.?	p.E453K	Substitution - Missense	
1864130	1864130	1754981	c.?	p.H1047R	Substitution - Missense	
1864131	1864131	1754982	c.?	p.H1047R	Substitution - Missense	
1864131	1864131	1754982	c.?	p.E453K	Substitution - Missense	
1876815	1876815	1767377	c.?	p.Q546P	Substitution - Missense	
1876816	1876816	1767378	c.?	p.Q546P	Substitution - Missense	
1882656	1882656	1772776	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882726	1882726	1772846	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1882729	1882729	1772849	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1882748	1882748	1772868	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882752	1882752	1772872	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1882755	1882755	1772875	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972144	1972144	1858393	c.?	p.E542K	Substitution - Missense	
1972155	1972155	1858404	c.?	p.E542K	Substitution - Missense	
1972157	1972157	1858406	c.?	p.E542K	Substitution - Missense	

1972165	1972165	1858414	c.?	p.E542K	Substitution - Missense
1972166	1972166	1858415	c.?	p.E542K	Substitution - Missense
1972174	1972174	1858423	c.?	p.E542K	Substitution - Missense
1972175	1972175	1858424	c.?	p.E542K	Substitution - Missense
1972177	1972177	1858426	c.?	p.E542K	Substitution - Missense
1972178	1972178	1858427	c.?	p.E542K	Substitution - Missense
1972182	1972182	1858431	c.?	p.E542K	Substitution - Missense
1972186	1972186	1858435	c.?	p.E542K	Substitution - Missense
1972188	1972188	1858437	c.?	p.E542K	Substitution - Missense
1972191	1972191	1858440	c.?	p.E542K	Substitution - Missense
1972192	1972192	1858441	c.?	p.E542K	Substitution - Missense
1972196	1972196	1858445	c.?	p.E545A	Substitution - Missense
1972197	1972197	1858446	c.?	p.E545A	Substitution - Missense
1972199	1972199	1858448	c.?	p.E545G	Substitution - Missense
1972200	1972200	1858449	c.?	p.E545G	Substitution - Missense
1972201	1972201	1858450	c.?	p.E545G	Substitution - Missense
1972208	1972208	1858457	c.?	p.E545K	Substitution - Missense
1972210	1972210	1858459	c.?	p.E545K	Substitution - Missense
1972214	1972214	1858463	c.?	p.E545K	Substitution - Missense
1972226	1972226	1858475	c.?	p.E545K	Substitution - Missense
1972232	1972232	1858481	c.?	p.E545K	Substitution - Missense
1972235	1972235	1858484	c.?	p.E545K	Substitution - Missense
1972242	1972242	1858491	c.?	p.E545K	Substitution - Missense
1972251	1972251	1858500	c.?	p.E545K	Substitution - Missense
1972254	1972254	1858503	c.?	p.E545K	Substitution - Missense
1972269	1972269	1858518	c.?	p.E545K	Substitution - Missense
1972273	1972273	1858522	c.?	p.E545K	Substitution - Missense
1972285	1972285	1858534	c.?	p.E545K	Substitution - Missense
1972287	1972287	1858536	c.?	p.E545K	Substitution - Missense
1972298	1972298	1858547	c.?	p.E545K	Substitution - Missense
1972306	1972306	1858555	c.?	p.E545K	Substitution - Missense
1972309	1972309	1858558	c.?	p.E545Q	Substitution - Missense
1972310	1972310	1858559	c.?	p.H1047L	Substitution - Missense
1972313	1972313	1858562	c.?	p.H1047L	Substitution - Missense
1972314	1972314	1858563	c.?	p.H1047L	Substitution - Missense
1972320	1972320	1858569	c.?	p.H1047L	Substitution - Missense
1972327	1972327	1858576	c.?	p.H1047L	Substitution - Missense
1972328	1972328	1858577	c.?	p.H1047L	Substitution - Missense
1972337	1972337	1858586	c.?	p.H1047L	Substitution - Missense
1972339	1972339	1858588	c.?	p.H1047L	Substitution - Missense
1972340	1972340	1858589	c.?	p.H1047L	Substitution - Missense
1972343	1972343	1858592	c.?	p.H1047L	Substitution - Missense
1972348	1972348	1858597	c.?	p.H1047R	Substitution - Missense

1972349	1972349	1858598	c.?	p.H1047R	Substitution - Missense	
1972352	1972352	1858601	c.?	p.H1047R	Substitution - Missense	
1972355	1972355	1858604	c.?	p.H1047R	Substitution - Missense	
1972357	1972357	1858606	c.?	p.H1047R	Substitution - Missense	
1972359	1972359	1858608	c.?	p.H1047R	Substitution - Missense	
1972364	1972364	1858613	c.?	p.H1047R	Substitution - Missense	
1972368	1972368	1858617	c.?	p.H1047R	Substitution - Missense	
1972371	1972371	1858620	c.?	p.H1047R	Substitution - Missense	
1972373	1972373	1858622	c.?	p.H1047R	Substitution - Missense	
1972385	1972385	1858634	c.?	p.H1047R	Substitution - Missense	
1972386	1972386	1858635	c.?	p.H1047R	Substitution - Missense	
1972400	1972400	1858649	c.?	p.H1047R	Substitution - Missense	
1972408	1972408	1858657	c.?	p.H1047R	Substitution - Missense	
1972412	1972412	1858661	c.?	p.H1047R	Substitution - Missense	
1972415	1972415	1858664	c.?	p.H1047R	Substitution - Missense	
1972424	1972424	1858673	c.?	p.H1047R	Substitution - Missense	
1972426	1972426	1858675	c.?	p.H1047R	Substitution - Missense	
1972430	1972430	1858679	c.?	p.H1047R	Substitution - Missense	
1972431	1972431	1858680	c.?	p.H1047R	Substitution - Missense	
1972433	1972433	1858682	c.?	p.H1047R	Substitution - Missense	
1972442	1972442	1858691	c.?	p.H1047R	Substitution - Missense	
1972445	1972445	1858694	c.?	p.H1047R	Substitution - Missense	
1972458	1972458	1858707	c.?	p.H1047R	Substitution - Missense	
1972460	1972460	1858709	c.?	p.H1047R	Substitution - Missense	
1972464	1972464	1858713	c.?	p.H1047R	Substitution - Missense	
1972473	1972473	1858722	c.?	p.H1047R	Substitution - Missense	
1972484	1972484	1858733	c.?	p.H1047R	Substitution - Missense	
1972486	1972486	1858735	c.?	p.H1047R	Substitution - Missense	
1972494	1972494	1858743	c.?	p.H1047R	Substitution - Missense	
1972495	1972495	1858744	c.?	p.H1047R	Substitution - Missense	
1972499	1972499	1858748	c.?	p.H1047R	Substitution - Missense	
1972506	1972506	1858755	c.?	p.H1047R	Substitution - Missense	
1972536	1972536	1858785	c.?	p.H1047R	Substitution - Missense	
1972537	1972537	1858786	c.?	p.H1047R	Substitution - Missense	
1972540	1972540	1858789	c.?	p.H1047R	Substitution - Missense	
1972545	1972545	1858794	c.?	p.H1047R	Substitution - Missense	
1972546	1972546	1858795	c.?	p.H1047R	Substitution - Missense	
1972552	1972552	1858801	c.?	p.H1047R	Substitution - Missense	
1972560	1972560	1858809	c.?	p.H1047R	Substitution - Missense	
2042629	2042629	1923747	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2042634	2042634	1923752	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2042643	2042643	1923761	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2042646	2042646	1923764	c.3104C>T	p.A1035V	Substitution - Missense	3:178952049-178952049

2042649	2042649	1923767	c.3132T>G	p.N1044K	Substitution - Missense	3:178952077-178952077
2042680	2042680	1923798	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2042879	2042879	1923988	c.1612G>T	p.D538Y	Substitution - Missense	3:178936070-178936070
2067942	2067942	1947735	c.?	p.H1047R	Substitution - Missense	
2107718	2107718	1985579	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2107722	2107722	1985583	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2107723	2107723	1985584	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
2131988	2131988	2006051	c.?	p.E545K	Substitution - Missense	
2131989	2131989	2006052	c.?	p.E545K	Substitution - Missense	
2131991	2131991	2006054	c.?	p.H1047R	Substitution - Missense	
HCC1500	1018471	935629	c.3075C>T	p.T1025T	Substitution - coding silent	3:178952020-178952020
HCC1954	2165007	2033419	c.?	p.H1047R	Substitution - Missense	
PD3983a	1280802	1192095	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD3994a	1280826	1192117	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
PD4076a	1304487	1215535	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD4124a	1331075	1241549	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
PD4126a	1331079	1241553	c.3127A>G	p.M1043V	Substitution - Missense	3:178952072-178952072
PD4137a	1331107	1241581	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
SK-BR-5	1289406	1200681	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
SUM-159	904389	821934	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
UACC893	1017162	934332	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
UACC893	1018469	935627	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
EFM-192A	2165004	2033416	c.?	p.C420R	Substitution - Missense	
HF-11386	1507764	1430630	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
SUM185PE	1046940	963171	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
SUM185PE	1289413	1200688	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
UACC-812	1136361	1048925	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
UACC-893	1046943	963174	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
Sample_II	2053349	1933595	c.?	p.H1047R	Substitution - Missense	
HF-17392-(1)	1507759	1430625	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-A2-A04P-0	1899600	1788284	c.263G>A	p.R88Q	Substitution - Missense	3:178916876-178916876
CGA-A2-A0CP-0	1899608	1788292	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0CP-0	1899608	1788292	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
CGA-A2-A0EX-0	1899625	1788309	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A2-A0YI-0	1899636	1788320	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-A2-A0YL-0	1779320	1683319	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A7-A0CH-0	1899655	1788339	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A7-A3J1-0	2187866	2056144	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-A7-A425-0	2187864	2056142	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A06U-0	1779338	1683337	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A08L-0	1899704	1788388	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A09D-0	1899721	1788405	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A0A9-0	1899737	1788421	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

CGA-AC-A23E-0	1899741	1788425	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AC-A2QI-0	2187837	2056115	c.3127A>G	p.M1043V	Substitution - Missense	3:178952072-178952072
CGA-AC-A3OD-C	2187833	2056111	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AC-A3W6-C	2187829	2056107	c.353G>A	p.G118D	Substitution - Missense	3:178917478-178917478
CGA-AC-A3YJ-0	2187827	2056105	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AN-A04C-0	1899746	1788430	c.1886C>G	p.S629C	Substitution - Missense	3:178937498-178937498
CGA-AN-A0AK-0	2187823	2056101	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AN-A0FF-0	1899754	1788438	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AN-A0XL-0	1899764	1788448	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AQ-A54O-C	2187817	2056095	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AR-A1AV-0	1899828	1788512	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A5QP-C	2187804	2056082	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-B6-A0IP-0	1899858	1788542	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-B6-A0IP-0	1899858	1788542	c.263G>A	p.R88Q	Substitution - Missense	3:178916876-178916876
CGA-BH-A0B5-0	1899887	1788571	c.331_333delAAG	p.K111delK	Deletion - In frame	3:178916944-178916946
CGA-BH-A0BA-0	1899891	1788575	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0BJ-0	1899894	1788578	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-BH-A0DO-C	1899915	1788599	c.3129G>A	p.M1043I	Substitution - Missense	3:178952074-178952074
CGA-BH-A0DX-C	1899920	1788604	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-BH-A0GY-C	1899931	1788615	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0W7-C	1899947	1788631	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
CGA-BH-A0W7-C	1899947	1788631	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A18M-C	1899954	1788638	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A1ET-0	1899966	1788650	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-C8-A12N-0	1899999	1788683	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-C8-A12U-0	1900004	1788688	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A12Y-0	1900008	1788692	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A1HE-0	1900018	1788702	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A143-0	1900043	1788727	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A146-0	1900045	1788729	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-D8-A1J8-0	2187786	2056064	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-D8-A1JE-0	1900051	1788735	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1XB-0	1900071	1788755	c.313_324del12	p.V105_R108delVGNR	Deletion - In frame	3:178916926-178916937
CGA-D8-A1XL-0	1900076	1788760	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
CGA-D8-A1XS-0	1900080	1788764	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-D8-A1Y2-0	1900089	1788773	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-D8-A27P-0	1900099	1788783	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A27T-0	1900101	1788785	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-D8-A3Z6-0	2187778	2056056	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A10B-0	1900108	1788792	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A10F-0	1900111	1788795	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A10F-0	1900111	1788795	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
CGA-E2-A152-0	1900125	1788809	c.2292C>T	p.L764L	Substitution - coding silent	3:178941973-178941973

CGA-E2-A15G-0	1900139	1788823	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A15K-0	1900144	1788828	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A15L-0	1900145	1788829	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A1BC-0	1900158	1788842	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A11F-0	1900161	1788845	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A2P5-0	2187772	2056050	c.2740G>C	p.G914R	Substitution - Missense	3:178947865-178947865
CGA-E2-A2P5-0	2187772	2056050	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-E9-A1NI-0	1900195	1788879	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-E9-A1RI-0	1900212	1788896	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-LL-A50Y-0	2187711	2055989	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-LQ-A4E4-0	2187708	2055986	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-LQ-A4E4-0	2187708	2055986	c.1625A>G	p.E542G	Substitution - Missense	3:178936083-178936083
CGA-MS-A51U-0	2187707	2055985	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-OK-A5Q2-0	2187706	2055984	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-OL-A5S0-0	2187695	2055973	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-A1-A0SI-0	1899594	1788278	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A1-A0SI-0	1899594	1788278	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
CGA-E9-A1RA-0	1900204	1788888	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-A7-A4SF-0	2187857	2056135	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-D8-A27G-0	2187781	2056059	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670310	1670310	1583596	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972501	1972501	1858750	c.?	p.H1047R	Substitution - Missense	
1193512	1193512	1105408	c.?	p.H1047R	Substitution - Missense	
MCF-7	1436031	1345310	c.?	p.E545K	Substitution - Missense	
1972395	1972395	1858644	c.?	p.H1047R	Substitution - Missense	
1301928	1301928	1212979	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
MCF7	947352	863756	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972351	1972351	1858600	c.?	p.H1047R	Substitution - Missense	
1244798	1244798	1156504	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1321134	1321134	1232021	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703762	1703762	1611871	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1530110	1530110	1452482	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1692227	1692227	1600492	c.?	p.E542K	Substitution - Missense	
904417	904417	821962	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1212760	1212760	1124627	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1670311	1670311	1583597	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HCC202	904358	821903	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1657037	1657037	1571692	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1709212	1709212	1617118	c.?	p.H1047R	Substitution - Missense	
2067909	2067909	1947702	c.?	p.E545K	Substitution - Missense	
1972293	1972293	1858542	c.?	p.E545K	Substitution - Missense	
1329569	1329569	1240054	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135808	1135808	1048372	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1972370	1972370	1858619	c.?	p.H1047R	Substitution - Missense	
1443749	1443749	1367994	c.?	p.H1047R	Substitution - Missense	
1135894	1135894	1048458	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193535	1193535	1105431	c.?	p.H1047R	Substitution - Missense	
1972162	1972162	1858411	c.?	p.E542K	Substitution - Missense	
1244789	1244789	1156495	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244909	1244909	1156615	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972316	1972316	1858565	c.?	p.H1047L	Substitution - Missense	
1329610	1329610	1240095	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972234	1972234	1858483	c.?	p.E545K	Substitution - Missense	
1698859	1698859	1606977	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1134431	1134431	1047091	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1134428	1134428	1047088	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193552	1193552	1105448	c.?	p.E545K	Substitution - Missense	
1972468	1972468	1858717	c.?	p.H1047R	Substitution - Missense	
CGA-A8-A096-0	1779385	1683384	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676198	1676198	1588970	c.?	p.H1047R	Substitution - Missense	
1329745	1329745	1240230	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A03L-0	1899769	1788453	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1972507	1972507	1858756	c.?	p.H1047R	Substitution - Missense	
1675748	1675748	1588620	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675736	1675736	1588614	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-BH-A0DV-0	1899919	1788603	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904425	904425	821970	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321155	1321155	1232042	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
107049	1520439	1442814	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738921	1738921	1644752	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1329585	1329585	1240070	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017178	1017178	934348	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CAL-148	2164985	2033397	c.?	p.H1047R	Substitution - Missense	
1720337	1720337	1627617	c.?	p.Q546K	Substitution - Missense	
E40060	894112	811880	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
901510	901510	819122	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419229	1419229	1329270	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972243	1972243	1858492	c.?	p.E545K	Substitution - Missense	
1244863	1244863	1156569	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244917	1244917	1156623	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670203	1670203	1583489	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329910	1329910	1240395	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244774	1244774	1156480	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1738898	1738898	1644729	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1297151	1297151	1208205	c.?	p.H1047R	Substitution - Missense	
CGA-E9-A1R0-0	1900197	1788881	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

TCGA-E9-A295-0	1900230	1788914	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1244765	1156471	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
	1676226	1588998	c.?	p.H1047R	Substitution - Missense	
	1703850	1611959	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244886	1156592	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1018918	935941	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1443901	1368146	c.?	p.H1047R	Substitution - Missense	
	1972553	1858802	c.?	p.H1047R	Substitution - Missense	
	1972168	1858417	c.?	p.E542K	Substitution - Missense	
	1675755	1588624	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972190	1858439	c.?	p.E542K	Substitution - Missense	
	1244842	1156548	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1738904	1644735	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
TCGA-A8-A09B-0	1899719	1788403	c.1338_1364del27	p447_L455delIPVPHGLEI	Deletion - In frame	3:178928060-178928086
	1864115	1754968	c.?	p.H1047R	Substitution - Missense	
	901507	819119	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	901509	819121	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244927	1156633	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-E9-A1R5-0	1900201	1788885	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
	1691782	1600048	c.?	p.E545K	Substitution - Missense	
	1297105	1208159	c.?	p.H1047R	Substitution - Missense	
	1122688	1035732	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1193567	1105463	c.?	p.E545K	Substitution - Missense	
	1876814	1767376	c.?	p.H1047R	Substitution - Missense	
	1329898	1240383	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1698884	1607002	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1321115	1232002	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1709210	1617116	c.?	p.H1047R	Substitution - Missense	
	904415	821960	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1972520	1858769	c.?	p.H1047R	Substitution - Missense	
	1698851	1606969	c.?	p.E545K	Substitution - Missense	
	1972264	1858513	c.?	p.E545K	Substitution - Missense	
	901519	819131	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1698518	1606636	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	901523	819135	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1018398	935556	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HF-11356	1507775	1430641	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1691788	1600054	c.?	p.H1047R	Substitution - Missense	
	2107716	1985577	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1297125	1208179	c.?	p.H1047R	Substitution - Missense	
	1244924	1156630	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1193391	1105287	c.3171G>A	p.W1057*	Substitution - Nonsense	3:178952116-178952116
	1193502	1105398	c.?	p.H1047R	Substitution - Missense	

1972529	1972529	1858778	c.?	p.H1047R	Substitution - Missense	
1329568	1329568	1240053	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1698835	1698835	1606953	c.?	p.E542K	Substitution - Missense	
1972248	1972248	1858497	c.?	p.E545K	Substitution - Missense	
2148914	2148914	2018044	c.?	p.K111E	Substitution - Missense	
1972181	1972181	1858430	c.?	p.E542K	Substitution - Missense	
1703787	1703787	1611896	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972160	1972160	1858409	c.?	p.E542K	Substitution - Missense	
1124171	1124171	1037214	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1297126	1297126	1208180	c.?	p.H1047R	Substitution - Missense	
1972401	1972401	1858650	c.?	p.H1047R	Substitution - Missense	
1972372	1972372	1858621	c.?	p.H1047R	Substitution - Missense	
1972344	1972344	1858593	c.?	p.H1047L	Substitution - Missense	
1703759	1703759	1611868	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972538	1972538	1858787	c.?	p.H1047R	Substitution - Missense	
SUM-102	904388	821933	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329825	1329825	1240310	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-E2-A153-0	1900126	1788810	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321118	1321118	1232005	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244848	1244848	1156554	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
2053341	2053341	1933589	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670324	1670324	1583610	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-A2-A04N-0	1899599	1788283	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
BB12T	1430363	1339777	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1134438	1134438	1047098	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698889	1698889	1607007	c.?	p.H1047L	Substitution - Missense	
CGA-EW-A11W-0	1900231	1788915	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1972367	1972367	1858616	c.?	p.H1047R	Substitution - Missense	
1193570	1193570	1105466	c.?	p.E542K	Substitution - Missense	
1882699	1882699	1772819	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1443609	1443609	1367854	c.?	p.H1047R	Substitution - Missense	
1698528	1698528	1606646	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698528	1698528	1606646	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1193559	1193559	1105455	c.?	p.E545K	Substitution - Missense	
1972450	1972450	1858699	c.?	p.H1047R	Substitution - Missense	
1122683	1122683	1035727	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321137	1321137	1232024	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HF-11322	1507790	1430656	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HF-11322	1507790	1430656	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
1703732	1703732	1611841	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
TCGA-E2-A14U-0	2187775	2056053	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
TCGA-A2-A04T-0	2187251	2055529	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
1720310	1720310	1627590	c.?	p.H1047R	Substitution - Missense	

1703854	1703854	1611963	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244920	1244920	1156626	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017891	1017891	935049	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443742	1443742	1367987	c.?	p.H1047R	Substitution - Missense	
1329739	1329739	1240224	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244939	1244939	1156645	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124257	1124257	1037300	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530098	1530098	1452470	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443750	1443750	1367995	c.?	p.H1047R	Substitution - Missense	
1443946	1443946	1368191	c.?	p.E542K	Substitution - Missense	
1972335	1972335	1858584	c.?	p.H1047L	Substitution - Missense	
1124178	1124178	1037221	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244796	1244796	1156502	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1329900	1329900	1240385	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972329	1972329	1858578	c.?	p.H1047L	Substitution - Missense	
CGA-A7-A13G-0	1899662	1788346	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244894	1244894	1156600	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124610	1124610	1037653	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1018917	1018917	935940	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244769	1244769	1156475	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1972138	1972138	1858387	c.?	p.E542K	Substitution - Missense	
1739298	1739298	1645018	c.?	p.H1047Y	Substitution - Missense	
1698849	1698849	1606967	c.?	p.E545K	Substitution - Missense	
CGA-B6-A0RQ-0	1899865	1788549	c.1625A>G	p.E542G	Substitution - Missense	3:178936083-178936083
1135854	1135854	1048418	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2107738	2107738	1985599	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1972307	1972307	1858556	c.?	p.E545Q	Substitution - Missense	
1017962	1017962	935120	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
JIMT-1	2165010	2033422	c.?	p.C420R	Substitution - Missense	
1301957	1301957	1213008	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703780	1703780	1611889	c.1637A>C	p.Q546P	Substitution - Missense	3:178936095-178936095
CAL-51	2164986	2033398	c.?	p.E542K	Substitution - Missense	
1244805	1244805	1156511	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703755	1703755	1611864	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2067912	2067912	1947705	c.?	p.H1047R	Substitution - Missense	
1676171	1676171	1588943	c.?	p.H1047R	Substitution - Missense	
2	1971251	1857500	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703773	1703773	1611882	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329575	1329575	1240060	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244857	1244857	1156563	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1835035	1835035	1730067	c.?	p.H1047R	Substitution - Missense	
1703758	1703758	1611867	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972472	1972472	1858721	c.?	p.H1047R	Substitution - Missense	

904416	904416	821961	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1017857	1017857	935015	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017847	1017847	935005	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443754	1443754	1367999	c.?	p.H1047R	Substitution - Missense	
1018400	1018400	935558	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882698	1882698	1772818	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018390	1018390	935548	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329571	1329571	1240056	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972279	1972279	1858528	c.?	p.E545K	Substitution - Missense	
1443959	1443959	1368204	c.?	p.H1047R	Substitution - Missense	
2107719	2107719	1985580	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1698843	1698843	1606961	c.?	p.E545K	Substitution - Missense	
1691787	1691787	1600053	c.?	p.H1047R	Substitution - Missense	
1691790	1691790	1600056	c.?	p.H1047L	Substitution - Missense	
1703818	1703818	1611927	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135893	1135893	1048457	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124128	1124128	1037171	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1738893	1738893	1644724	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1017898	1017898	935056	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193526	1193526	1105422	c.?	p.H1047R	Substitution - Missense	
1972333	1972333	1858582	c.?	p.H1047L	Substitution - Missense	
HF-11316	1507795	1430661	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703860	1703860	1611969	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901522	901522	819134	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-B6-A0IK-0	1899857	1788541	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135795	1135795	1048359	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193566	1193566	1105462	c.?	p.E545K	Substitution - Missense	
901501	901501	819113	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1530100	1530100	1452472	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703725	1703725	1611834	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1691785	1691785	1600051	c.?	p.H1047R	Substitution - Missense	
1443957	1443957	1368202	c.?	p.H1047R	Substitution - Missense	
1698887	1698887	1607005	c.?	p.H1047L	Substitution - Missense	
1698875	1698875	1606993	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703789	1703789	1611898	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
TCGA-OL-A5D6-0	2187705	2055983	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1972527	1972527	1858776	c.?	p.H1047R	Substitution - Missense	
1301940	1301940	1212991	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1676275	1676275	1589047	c.?	p.H1047R	Substitution - Missense	
1698856	1698856	1606974	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670217	1670217	1583503	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321154	1321154	1232041	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212746	1212746	1124613	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

1124268	1124268	1037311	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1018395	1018395	935553	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135880	1135880	1048444	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972465	1972465	1858714	c.?	p.H1047R	Substitution - Missense	
1972183	1972183	1858432	c.?	p.E542K	Substitution - Missense	
1244820	1244820	1156526	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
E40057	894109	811877	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1301923	1301923	1212974	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135907	1135907	1048471	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1312219	1312219	1223128	c.?	p.H1047R	Substitution - Missense	
1321147	1321147	1232034	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135846	1135846	1048410	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972274	1972274	1858523	c.?	p.E545K	Substitution - Missense	
1720341	1720341	1627621	c.?	p.E545K	Substitution - Missense	
CGA-E9-A1R4-0	1900200	1788884	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972252	1972252	1858501	c.?	p.E545K	Substitution - Missense	
1297102	1297102	1208156	c.?	p.E542K	Substitution - Missense	
1522790	1522790	1445162	c.3059C>T	p.A1020V	Substitution - Missense	3:178952004-178952004
1193534	1193534	1105430	c.?	p.H1047R	Substitution - Missense	
107086	1520557	1442932	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244932	1244932	1156638	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301962	1301962	1213013	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904475	904475	822020	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
1244938	1244938	1156644	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A1BD-0	1900159	1788843	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698512	1698512	1606630	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1676241	1676241	1589013	c.?	p.E545K	Substitution - Missense	
1972521	1972521	1858770	c.?	p.H1047R	Substitution - Missense	
1670220	1670220	1583506	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443953	1443953	1368198	c.?	p.H1047R	Substitution - Missense	
1972167	1972167	1858416	c.?	p.E542K	Substitution - Missense	
1122689	1122689	1035733	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972551	1972551	1858800	c.?	p.H1047R	Substitution - Missense	
1244837	1244837	1156543	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
904463	904463	822008	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1278874	1278874	1190170	c.?	p.H1047R	Substitution - Missense	
1244904	1244904	1156610	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972281	1972281	1858530	c.?	p.E545K	Substitution - Missense	
MDA-MB-361	2165011	2033423	c.?	p.E545K	Substitution - Missense	
1882737	1882737	1772857	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972143	1972143	1858392	c.?	p.E542K	Substitution - Missense	
1135850	1135850	1048414	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530126	1530126	1452498	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082

1017836	1017836	934994	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703761	1703761	1611870	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703808	1703808	1611917	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698536	1698536	1606654	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443713	1443713	1367958	c.?	p.H1047R	Substitution - Missense	
T47D	1136342	1048906	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972360	1972360	1858609	c.?	p.H1047R	Substitution - Missense	
1193387	1193387	1105283	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301969	1301969	1213020	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244775	1244775	1156481	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1703753	1703753	1611862	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1419230	1419230	1329271	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193518	1193518	1105414	c.?	p.H1047R	Substitution - Missense	
1124130	1124130	1037173	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244766	1244766	1156472	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1244841	1244841	1156547	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1134444	1134444	1047104	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
57	1860502	1751443	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193497	1193497	1105393	c.?	p.H1047R	Substitution - Missense	
1017845	1017845	935003	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443898	1443898	1368143	c.?	p.E542K	Substitution - Missense	
1329827	1329827	1240312	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BC31	1280997	1192288	c.?	p.E545K	Substitution - Missense	
1124414	1124414	1037457	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703828	1703828	1611937	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1122686	1122686	1035730	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972282	1972282	1858531	c.?	p.E545K	Substitution - Missense	
CGA-EW-A11Z-0	1900234	1788918	c.2017T>A	p.S673T	Substitution - Missense	3:178938775-178938775
HF-11317	1507794	1430660	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A12T-0	1900003	1788687	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
PD4119a	1331065	1241539	c.1635G>C	p.E545D	Substitution - Missense	3:178936093-178936093
1124240	1124240	1037283	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
904440	904440	821985	c.3132T>A	p.N1044K	Substitution - Missense	3:178952077-178952077
1972461	1972461	1858710	c.?	p.H1047R	Substitution - Missense	
1244871	1244871	1156577	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698520	1698520	1606638	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1321150	1321150	1232037	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E39848	894059	811827	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017834	1017834	934992	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1676180	1676180	1588952	c.?	p.H1047R	Substitution - Missense	
1972463	1972463	1858712	c.?	p.H1047R	Substitution - Missense	
1703857	1703857	1611966	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972260	1972260	1858509	c.?	p.E545K	Substitution - Missense	

1972438	1972438	1858687	c.?	p.H1047R	Substitution - Missense	
1665033	1665033	1578483	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670193	1670193	1583479	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244825	1244825	1156531	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1691789	1691789	1600055	c.?	p.H1047R	Substitution - Missense	
1703806	1703806	1611915	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135838	1135838	1048402	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419252	1419252	1329293	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193546	1193546	1105442	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1691736	1691736	1600002	c.?	p.H1047R	Substitution - Missense	
1443712	1443712	1367957	c.?	p.H1047R	Substitution - Missense	
1703749	1703749	1611858	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1691746	1691746	1600012	c.?	p.E545K	Substitution - Missense	
1244770	1244770	1156476	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1244839	1244839	1156545	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
E40056	894108	811876	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1720344	1720344	1627624	c.?	p.E545K	Substitution - Missense	
1193554	1193554	1105450	c.?	p.E545K	Substitution - Missense	
1739303	1739303	1645023	c.?	p.H1047L	Substitution - Missense	
1703728	1703728	1611837	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1122691	1122691	1035735	c.(1624_1633)G>A	p.(542_545)E>K	Substitution - Missense	
1297131	1297131	1208185	c.?	p.H1047R	Substitution - Missense	
CGA-A7-A0DB-0	1899659	1788343	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
SUM190PT	1289414	1200689	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419226	1419226	1329267	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419226	1419226	1329267	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1698533	1698533	1606651	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
2042674	2042674	1923792	c.1658G>A	p.S553N	Substitution - Missense	3:178936116-178936116
1329582	1329582	1240067	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2107714	2107714	1985575	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703768	1703768	1611877	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703746	1703746	1611855	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2042674	2042674	1923792	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2042674	2042674	1923792	c.1543A>G	p.N515D	Substitution - Missense	3:178936001-178936001
1972303	1972303	1858552	c.?	p.E545K	Substitution - Missense	
1703785	1703785	1611894	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1703775	1703775	1611884	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1017179	1017179	934349	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244855	1244855	1156561	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124385	1124385	1037428	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1122680	1122680	1035724	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703841	1703841	1611950	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A26W-0	1900029	1788713	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1698861	1698861	1606979	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321114	1321114	1232001	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135834	1135834	1048398	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703744	1703744	1611853	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904402	904402	821947	c.178C>A	p.Q60K	Substitution - Missense	3:178916791-178916791
1972291	1972291	1858540	c.?	p.E545K	Substitution - Missense	
1244858	1244858	1156564	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124231	1124231	1037274	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-A8-A08R-0	1899707	1788391	c.1840T>A	p.F614I	Substitution - Missense	3:178937452-178937452
CGA-AC-A23H-0	2187848	2056126	c.1368G>A	p.L456L	Substitution - coding silent	3:178928090-178928090
CGA-AC-A23H-0	2187848	2056126	c.2965C>G	p.L989V	Substitution - Missense	3:178951910-178951910
CGA-AC-A23H-0	2187848	2056126	c.1807G>C	p.D603H	Substitution - Missense	3:178937419-178937419
CGA-AR-A255-0	1899852	1788536	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-AR-A0TZ-0	1779497	1683496	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-B6-A0IE-0	1779528	1683527	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124396	1124396	1037439	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1692034	1692034	1600299	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972378	1972378	1858627	c.?	p.H1047R	Substitution - Missense	
1244930	1244930	1156636	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017840	1017840	934998	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443741	1443741	1367986	c.?	p.H1047R	Substitution - Missense	
1670327	1670327	1583613	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698508	1698508	1606626	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1676240	1676240	1589012	c.?	p.E545K	Substitution - Missense	
1676240	1676240	1589012	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443730	1443730	1367975	c.?	p.H1047R	Substitution - Missense	
1329830	1329830	1240315	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443958	1443958	1368203	c.?	p.H1047R	Substitution - Missense	
1135823	1135823	1048387	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419244	1419244	1329285	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972277	1972277	1858526	c.?	p.E545K	Substitution - Missense	
1244771	1244771	1156477	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
901516	901516	819128	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703735	1703735	1611844	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1017850	1017850	935008	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1444021	1444021	1368266	c.?	p.E542K	Substitution - Missense	
1444021	1444021	1368266	c.?	p.H1047R	Substitution - Missense	
1972153	1972153	1858402	c.?	p.E542K	Substitution - Missense	
1972414	1972414	1858663	c.?	p.H1047R	Substitution - Missense	
BT-20	1136370	1048934	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BT-20	1136370	1048934	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
1972354	1972354	1858603	c.?	p.H1047R	Substitution - Missense	
1122693	1122693	1035737	c.(1624_1633)G>A	p.(542_545)E>K	Substitution - Missense	

	1739277	1739277	1644999	c.?	p.H1047R	Substitution - Missense	
	1530103	1530103	1452475	c.1637A>T	p.Q546L	Substitution - Missense	3:178936095-178936095
	1675752	1675752	1588622	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972398	1972398	1858647	c.?	p.H1047R	Substitution - Missense	
	1972455	1972455	1858704	c.?	p.H1047R	Substitution - Missense	
	1698892	1698892	1607010	c.?	p.H1047L	Substitution - Missense	
CGA-BH-A203-0	1899991	1788675	1788675	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972459	1972459	1858708	c.?	p.H1047R	Substitution - Missense	
	1443695	1443695	1367940	c.?	p.H1047R	Substitution - Missense	
	1443695	1443695	1367940	c.?	p.E542K	Substitution - Missense	
	1017851	1017851	935009	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1124235	1124235	1037278	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1703741	1703741	1611850	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1720283	1720283	1627563	c.?	p.H1047R	Substitution - Missense	
CGA-BH-A208-0	1899993	1788677	1788677	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A0A6-0	2187850	2056128	2056128	c.353G>A	p.G118D	Substitution - Missense	3:178917478-178917478
	1321132	1321132	1232019	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1675747	1675747	1588620	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A5QM-C	2187806	2056084	2056084	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972541	1972541	1858790	c.?	p.H1047R	Substitution - Missense	
	1691704	1691704	1599970	c.?	p.H1047R	Substitution - Missense	
	103452	1520493	1442868	c.2908G>A	p.E970K	Substitution - Missense	3:178948136-178948136
	1135825	1135825	1048389	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1864124	1864124	1754976	c.?	p.C420R	Substitution - Missense	
BT-483	1289384	1200659	1200659	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1329564	1329564	1240049	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1443909	1443909	1368154	c.?	p.H1047R	Substitution - Missense	
	1193495	1193495	1105391	c.?	p.H1047R	Substitution - Missense	
OCUB-F	1046937	963168	963168	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1703797	1703797	1611906	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1738931	1738931	1644762	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
	1698535	1698535	1606653	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1972212	1972212	1858461	c.?	p.E545K	Substitution - Missense	
	1193389	1193389	1105285	c.1639G>A	p.E547K	Substitution - Missense	3:178936097-178936097
	1443903	1443903	1368148	c.?	p.H1047R	Substitution - Missense	
	1134426	1134426	1047086	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
SUM159PT	1289412	1200687	1200687	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1703823	1703823	1611932	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A1AS-0	1899825	1788509	1788509	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1864114	1864114	1754967	c.?	p.E542K	Substitution - Missense	
CGA-AR-A24M-C	1899835	1788519	1788519	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1329822	1329822	1240307	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1301977	1301977	1213028	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1244849	1244849	1156555	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1691791	1691791	1600057	c.?	p.H1047L	Substitution - Missense	
1244901	1244901	1156607	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135865	1135865	1048429	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
1435080	1435080	1344438	c.?	p.H1047R	Substitution - Missense	
1972347	1972347	1858596	c.?	p.H1047R	Substitution - Missense	
UACC-893	904397	821942	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698532	1698532	1606650	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-B6-A0X5-0	1779562	1683561	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419266	1419266	1329307	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1124594	1124594	1037637	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901513	901513	819125	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972518	1972518	1858767	c.?	p.H1047R	Substitution - Missense	
1972322	1972322	1858571	c.?	p.H1047L	Substitution - Missense	
1018388	1018388	935546	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A09C-0	1899720	1788404	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1691783	1691783	1600049	c.?	p.E545K	Substitution - Missense	
1244854	1244854	1156560	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1443634	1443634	1367879	c.?	p.E542K	Substitution - Missense	
904441	904441	821986	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135833	1135833	1048397	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
T47D	947353	863757	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A0A7-0	1899736	1788420	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
CGA-AO-A125-0	1899787	1788471	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A7-A4SB-0	2187861	2056139	c.2908G>A	p.E970K	Substitution - Missense	3:178948136-178948136
CGA-C8-A131-0	1900011	1788695	c.323G>A	p.R108H	Substitution - Missense	3:178916936-178916936
CGA-C8-A131-0	1900011	1788695	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD3857a	1301772	1212825	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212767	1212767	1124634	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443625	1443625	1367870	c.?	p.H1047R	Substitution - Missense	
1124397	1124397	1037440	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703830	1703830	1611939	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017833	1017833	934991	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244838	1244838	1156544	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1124255	1124255	1037298	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
107052	1520435	1442810	c.3129G>C	p.M1043I	Substitution - Missense	3:178952074-178952074
1124230	1124230	1037273	c.?	p.N345I	Substitution - Missense	
904400	904400	821945	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
904400	904400	821945	c.1252G>A	p.E418K	Substitution - Missense	3:178927974-178927974
BC125	1281091	1192382	c.?	p.H1047R	Substitution - Missense	
1720339	1720339	1627619	c.?	p.E545K	Substitution - Missense	
1773305	1773305	1677545	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124423	1124423	1037466	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

901508	901508	819120	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1297153	1297153	1208207	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1709244	1709244	1617150	c.?	p.H1047R	Substitution - Missense	
1124242	1124242	1037285	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1082373	1082373	997591	c.93A>G	p.I31M	Substitution - Missense	3:178916706-178916706
MCF7	1998454	1883526	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329892	1329892	1240377	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1692044	1692044	1600309	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443707	1443707	1367952	c.?	p.H1047R	Substitution - Missense	
1698852	1698852	1606970	c.?	p.Q546K	Substitution - Missense	
1297123	1297123	1208177	c.?	p.H1047R	Substitution - Missense	
1691698	1691698	1599964	c.?	p.E545K	Substitution - Missense	
1530128	1530128	1452500	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124386	1124386	1037429	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972505	1972505	1858754	c.?	p.H1047R	Substitution - Missense	
1972206	1972206	1858455	c.?	p.E545K	Substitution - Missense	
MCF-7	1289391	1200666	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972156	1972156	1858405	c.?	p.E542K	Substitution - Missense	
1443904	1443904	1368149	c.?	p.H1047R	Substitution - Missense	
1657038	1657038	1571693	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1720336	1720336	1627616	c.?	p.H1047R	Substitution - Missense	
CGA-BH-A0W5-C	1779647	1683646	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1312227	1312227	1223136	c.?	p.E542K	Substitution - Missense	
1703756	1703756	1611865	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1530104	1530104	1452476	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1720343	1720343	1627623	c.?	p.E545K	Substitution - Missense	
1972488	1972488	1858737	c.?	p.H1047R	Substitution - Missense	
1703817	1703817	1611926	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135883	1135883	1048447	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972259	1972259	1858508	c.?	p.E545K	Substitution - Missense	
1882723	1882723	1772843	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1297107	1297107	1208161	c.?	p.H1047R	Substitution - Missense	
1691692	1691692	1599958	c.?	p.P539R	Substitution - Missense	
2131995	2131995	2006058	c.?	p.H1047R	Substitution - Missense	
1972489	1972489	1858738	c.?	p.H1047R	Substitution - Missense	
1443732	1443732	1367977	c.?	p.H1047R	Substitution - Missense	
1443745	1443745	1367990	c.?	p.H1047R	Substitution - Missense	
1443965	1443965	1368210	c.?	p.H1047R	Substitution - Missense	
1435085	1435085	1344443	c.?	p.E545K	Substitution - Missense	
1135901	1135901	1048465	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
47	1860500	1751441	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972391	1972391	1858640	c.?	p.H1047R	Substitution - Missense	
901521	901521	819133	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1972283	1972283	1858532	c.?	p.E545K	Substitution - Missense	
1703794	1703794	1611903	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670318	1670318	1583604	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703763	1703763	1611872	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904452	904452	821997	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670313	1670313	1583599	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135881	1135881	1048445	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1425135	1425135	1335163	c.?	p.E545K	Substitution - Missense	
10	1971259	1857508	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1301926	1301926	1212977	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
E39850	894061	811829	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135815	1135815	1048379	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
103941	1520498	1442873	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244764	1244764	1156470	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1703814	1703814	1611923	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HCC2185	1136368	1048932	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244793	1244793	1156499	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1193511	1193511	1105407	c.?	p.H1047R	Substitution - Missense	
1443613	1443613	1367858	c.?	p.H1047R	Substitution - Missense	
1773311	1773311	1677551	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703813	1703813	1611922	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738923	1738923	1644754	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
CGA-D8-A1JD-0	1900050	1788734	c.3012G>A	p.M1004I	Substitution - Missense	3:178951957-178951957
CGA-D8-A1JD-0	1900050	1788734	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
1329741	1329741	1240226	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JD-0	1900050	1788734	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321122	1321122	1232009	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1864145	1864145	1754993	c.?	p.H1047R	Substitution - Missense	
1244952	1244952	1156658	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124389	1124389	1037432	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972440	1972440	1858689	c.?	p.H1047R	Substitution - Missense	
LY-2	1136350	1048914	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703863	1703863	1611972	c.3132T>A	p.N1044K	Substitution - Missense	3:178952077-178952077
1972542	1972542	1858791	c.?	p.H1047R	Substitution - Missense	
1972425	1972425	1858674	c.?	p.H1047R	Substitution - Missense	
1972169	1972169	1858418	c.?	p.E542K	Substitution - Missense	
1703826	1703826	1611935	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703766	1703766	1611875	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-BH-A18H-0	1899949	1788633	c.3109G>A	p.E1037K	Substitution - Missense	3:178952054-178952054
CGA-A7-A0CG-0	1899654	1788338	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A202-0	1899990	1788674	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A202-0	1899990	1788674	c.1094A>T	p.E365V	Substitution - Missense	3:178922325-178922325
CGA-B6-A0RH-0	1899861	1788545	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

PD4070a	1304442	1215490	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1017900	1017900	935058	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124135	1124135	1037178	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244922	1244922	1156628	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703846	1703846	1611955	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
Sample_I	2053322	1933575	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972223	1972223	1858472	c.?	p.E545K	Substitution - Missense	
1443615	1443615	1367860	c.?	p.H1047R	Substitution - Missense	
1244786	1244786	1156492	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1698870	1698870	1606988	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904456	904456	822001	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MFM-223	2165000	2033412	c.?	p.H1047R	Substitution - Missense	
1124259	1124259	1037302	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329833	1329833	1240318	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1193550	1193550	1105446	c.?	p.E545K	Substitution - Missense	
1972213	1972213	1858462	c.?	p.E545K	Substitution - Missense	
1443726	1443726	1367971	c.?	p.H1047R	Substitution - Missense	
1135801	1135801	1048365	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972147	1972147	1858396	c.?	p.E542K	Substitution - Missense	
1972241	1972241	1858490	c.?	p.E545K	Substitution - Missense	
1244875	1244875	1156581	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443733	1443733	1367978	c.?	p.H1047R	Substitution - Missense	
1312251	1312251	1223160	c.?	p.E545K	Substitution - Missense	
1972365	1972365	1858614	c.?	p.H1047R	Substitution - Missense	
1739274	1739274	1644996	c.?	p.H1047R	Substitution - Missense	
1675740	1675740	1588616	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443721	1443721	1367966	c.?	p.H1047R	Substitution - Missense	
1972159	1972159	1858408	c.?	p.E542K	Substitution - Missense	
1443731	1443731	1367976	c.?	p.H1047R	Substitution - Missense	
2107733	2107733	1985594	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676281	1676281	1589053	c.?	p.H1047R	Substitution - Missense	
1698526	1698526	1606644	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703731	1703731	1611840	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972261	1972261	1858510	c.?	p.E545K	Substitution - Missense	
1443704	1443704	1367949	c.?	p.H1047L	Substitution - Missense	
1738889	1738889	1644720	c.328G>A	p.E110K	Substitution - Missense	3:178916941-178916941
2042625	2042625	1923743	c.1637A>T	p.Q546L	Substitution - Missense	3:178936095-178936095
1703864	1703864	1611973	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1972342	1972342	1858591	c.?	p.H1047L	Substitution - Missense	
1017844	1017844	935002	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
E40063	894115	811883	c.1636C>G	p.Q546E	Substitution - Missense	3:178936094-178936094
2107735	2107735	1985596	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1739273	1739273	1644995	c.?	p.H1047R	Substitution - Missense	

CGA-E2-A156-0	1900129	1788813	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
PD4125a	1331077	1241551	c.241G>A	p.E81K	Substitution - Missense	3:178916854-178916854
1972411	1972411	1858660	c.?	p.H1047R	Substitution - Missense	
1135803	1135803	1048367	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD4125a	1331077	1241551	c.238G>A	p.E80K	Substitution - Missense	3:178916851-178916851
CGA-BH-A0BC-0	1779578	1683577	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244762	1244762	1156468	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1124191	1124191	1037234	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1691699	1691699	1599965	c.?	p.E545K	Substitution - Missense	
1443966	1443966	1368211	c.?	p.H1047R	Substitution - Missense	
1972413	1972413	1858662	c.?	p.H1047R	Substitution - Missense	
2107725	2107725	1985586	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018399	1018399	935557	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329903	1329903	1240388	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135859	1135859	1048423	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017853	1017853	935011	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017889	1017889	935047	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
MDA-MB453	1308995	1219940	c.?	p.H1047R	Substitution - Missense	
1675745	1675745	1588619	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E40065	894117	811885	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972559	1972559	1858808	c.?	p.H1047R	Substitution - Missense	
1312245	1312245	1223154	c.?	p.H1047R	Substitution - Missense	
1124245	1124245	1037288	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135822	1135822	1048386	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0EQ-0	1779290	1683289	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904434	904434	821979	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972257	1972257	1858506	c.?	p.E545K	Substitution - Missense	
1134440	1134440	1047100	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1698881	1698881	1606999	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703858	1703858	1611967	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E40059	894111	811879	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1301970	1301970	1213021	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972543	1972543	1858792	c.?	p.H1047R	Substitution - Missense	
1972399	1972399	1858648	c.?	p.H1047R	Substitution - Missense	
1443954	1443954	1368199	c.?	p.H1047R	Substitution - Missense	
CGA-E2-A15K-0	1900143	1788827	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972515	1972515	1858764	c.?	p.H1047R	Substitution - Missense	
1972180	1972180	1858429	c.?	p.E542K	Substitution - Missense	
BT-483	894085	811853	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1691784	1691784	1600050	c.?	p.H1047R	Substitution - Missense	
1720255	1720255	1627535	c.?	p.H1047R	Substitution - Missense	
1297122	1297122	1208176	c.?	p.H1047R	Substitution - Missense	
CGA-BH-A0DK-0	1899913	1788597	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980

1698888	1698888	1607006	c.?	p.H1047L	Substitution - Missense	
CGA-E2-A105-0	1900103	1788787	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A084-0	1899693	1788377	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-D8-A1JP-0	1900061	1788745	c.333G>C	p.K111N	Substitution - Missense	3:178916946-178916946
CGA-BH-A0B6-0	2187798	2056076	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
CGA-BH-A0B6-0	2187798	2056076	c.241G>A	p.E81K	Substitution - Missense	3:178916854-178916854
CGA-AC-A2FO-0	2187839	2056117	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A8-A093-0	1899715	1788399	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
CGA-GM-A3NW-(	2187727	2056005	c.1033A>C	p.N345H	Substitution - Missense	3:178921551-178921551
2107709	2107709	1985570	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1691711	1691711	1599977	c.?	p.H1047R	Substitution - Missense	
1312248	1312248	1223157	c.?	p.E545K	Substitution - Missense	
1302098	1302098	1213149	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1312253	1312253	1223162	c.?	p.E542K	Substitution - Missense	
1703800	1703800	1611909	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301980	1301980	1213031	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972172	1972172	1858421	c.?	p.E542K	Substitution - Missense	
1972221	1972221	1858470	c.?	p.E545K	Substitution - Missense	
1301948	1301948	1212999	c.3132T>A	p.N1044K	Substitution - Missense	3:178952077-178952077
BT-20	1289382	1200657	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BT-20	1289382	1200657	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
1329751	1329751	1240236	c.3127A>G	p.M1043V	Substitution - Missense	3:178952072-178952072
1657033	1657033	1571688	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972236	1972236	1858485	c.?	p.E545K	Substitution - Missense	
BC103	1281069	1192360	c.?	p.G1049R	Substitution - Missense	
1244931	1244931	1156637	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675757	1675757	1588625	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124419	1124419	1037462	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972224	1972224	1858473	c.?	p.E545K	Substitution - Missense	
1124258	1124258	1037301	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124264	1124264	1037307	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738919	1738919	1644750	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
T47D	1018470	935628	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901524	901524	819136	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1193538	1193538	1105434	c.?	p.H1047R	Substitution - Missense	
1703809	1703809	1611918	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670191	1670191	1583477	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443646	1443646	1367891	c.?	p.H1047R	Substitution - Missense	
1443755	1443755	1368000	c.?	p.H1047R	Substitution - Missense	
1738907	1738907	1644738	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-B6-A0RN-0	1779544	1683543	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244797	1244797	1156503	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443907	1443907	1368152	c.?	p.H1047R	Substitution - Missense	

1670192	1670192	1583478	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1675759	1675759	1588626	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1738922	1738922	1644753	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1244821	1244821	1156527	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244818	1244818	1156524	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972474	1972474	1858723	c.?	p.H1047R	Substitution - Missense	
1972187	1972187	1858436	c.?	p.E542K	Substitution - Missense	
1301949	1301949	1213000	c.3130A>T	p.N1044Y	Substitution - Missense	3:178952075-178952075
107428	1520568	1442943	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244900	1244900	1156606	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018409	1018409	935567	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
TCGA-C8-A133-0	1900013	1788697	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321125	1321125	1232012	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972325	1972325	1858574	c.?	p.H1047L	Substitution - Missense	
MDA-MB-453	904383	821928	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904466	904466	822011	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-OL-A5DA-0	2187702	2055980	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
1972244	1972244	1858493	c.?	p.E545K	Substitution - Missense	
1278878	1278878	1190174	c.?	p.H1047R	Substitution - Missense	
1972500	1972500	1858749	c.?	p.H1047R	Substitution - Missense	
CGA-EW-A3E8-0	2187745	2056023	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443736	1443736	1367981	c.?	p.H1047R	Substitution - Missense	
1329570	1329570	1240055	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1329596	1329596	1240081	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-BH-A181-0	1899950	1788634	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1720334	1720334	1627614	c.?	p.H1047R	Substitution - Missense	
BC100	1281066	1192357	c.?	p.H1047R	Substitution - Missense	
1329576	1329576	1240061	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972258	1972258	1858507	c.?	p.E545K	Substitution - Missense	
1882719	1882719	1772839	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1443956	1443956	1368201	c.?	p.H1047R	Substitution - Missense	
1972524	1972524	1858773	c.?	p.H1047R	Substitution - Missense	
1972198	1972198	1858447	c.?	p.E545G	Substitution - Missense	
904404	904404	821949	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1212756	1212756	1124623	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-BH-A0HA-0	1899939	1788623	c.325_327delGAA	p.E109del	Deletion - In frame	3:178916938-178916940
1124236	1124236	1037279	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972326	1972326	1858575	c.?	p.H1047L	Substitution - Missense	
1297154	1297154	1208208	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972290	1972290	1858539	c.?	p.E545K	Substitution - Missense	
1703792	1703792	1611901	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972163	1972163	1858412	c.?	p.E542K	Substitution - Missense	
5	1971254	1857503	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1212745	1212745	1124612	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
PD4135a	1331103	1241577	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
PD4108a	1317051	1227955	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD4110a	1317055	1227959	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-GM-A2DD-(	2187736	2056014	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A24S-0	1899841	1788525	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244953	1244953	1156659	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MDA-MB-453	1289401	1200676	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329717	1329717	1240202	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
MDA-MB361	1308994	1219939	c.?	p.E545K	Substitution - Missense	
1312226	1312226	1223135	c.?	p.E545K	Substitution - Missense	
1124251	1124251	1037294	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972228	1972228	1858477	c.?	p.E545K	Substitution - Missense	
1244881	1244881	1156587	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972286	1972286	1858535	c.?	p.E545K	Substitution - Missense	
2042675	2042675	1923793	c.?	p.?	Unknown	
E40068	894120	811888	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018380	1018380	935538	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1018380	1018380	935538	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904469	904469	822014	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882697	1882697	1772817	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
HCC1954	1935009	1821943	c.?	p.H1047R	Substitution - Missense	
1443950	1443950	1368195	c.?	p.H1047R	Substitution - Missense	
1244910	1244910	1156616	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193572	1193572	1105468	c.?	p.E542K	Substitution - Missense	
1972238	1972238	1858487	c.?	p.E545K	Substitution - Missense	
BC53	1281019	1192310	c.?	p.H1047R	Substitution - Missense	
1301981	1301981	1213032	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1321140	1321140	1232027	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972239	1972239	1858488	c.?	p.E545K	Substitution - Missense	
904444	904444	821989	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135858	1135858	1048422	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244941	1244941	1156647	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698521	1698521	1606639	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1321131	1321131	1232018	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A081-0	1899690	1788374	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124165	1124165	1037208	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-B6-A0RP-0	1899864	1788548	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1709245	1709245	1617151	c.?	p.H1047R	Substitution - Missense	
1018382	1018382	935540	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124406	1124406	1037449	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1692043	1692043	1600308	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972324	1972324	1858573	c.?	p.H1047L	Substitution - Missense	

1443951	1443951	1368196	c.?	p.H1047R	Substitution - Missense	
1419245	1419245	1329286	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301938	1301938	1212989	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
E39841	894052	811820	c.263G>A	p.R88Q	Substitution - Missense	3:178916876-178916876
904462	904462	822007	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018396	1018396	935554	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419250	1419250	1329291	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703835	1703835	1611944	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244828	1244828	1156534	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1692230	1692230	1600495	c.?	p.H1047R	Substitution - Missense	
1972185	1972185	1858434	c.?	p.E542K	Substitution - Missense	
1018389	1018389	935547	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BT-474	904351	821896	c.333G>C	p.K111N	Substitution - Missense	3:178916946-178916946
CGA-B6-A0RO-0	1779545	1683544	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A27L-0	1900096	1788780	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2131986	2131986	2006049	c.?	p.E545K	Substitution - Missense	
1698525	1698525	1606643	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
1691694	1691694	1599960	c.?	p.E542K	Substitution - Missense	
1301975	1301975	1213026	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698525	1698525	1606643	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1135873	1135873	1048437	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
SA218	1659988	1574316	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A2LM-0	2187811	2056089	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
PD4122a	1331071	1241545	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1703805	1703805	1611914	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530061	1530061	1452433	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321136	1321136	1232023	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703838	1703838	1611947	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329609	1329609	1240094	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018381	1018381	935539	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018381	1018381	935539	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
904437	904437	821982	c.2102A>C	p.H701P	Substitution - Missense	3:178938860-178938860
1720256	1720256	1627536	c.?	p.H1047R	Substitution - Missense	
1018393	1018393	935551	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124253	1124253	1037296	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212743	1212743	1124610	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135878	1135878	1048442	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1312223	1312223	1223132	c.?	p.E545K	Substitution - Missense	
1329719	1329719	1240204	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1301929	1301929	1212980	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972516	1972516	1858765	c.?	p.H1047R	Substitution - Missense	
1244926	1244926	1156632	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244944	1244944	1156650	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

904458	904458	822003	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2067948	2067948	1947741	c.?	p.H1047R	Substitution - Missense	
1193522	1193522	1105418	c.?	p.H1047R	Substitution - Missense	
1193498	1193498	1105394	c.?	p.H1047R	Substitution - Missense	
BC87	1281053	1192344	c.?	p.H1047R	Substitution - Missense	
1193536	1193536	1105432	c.?	p.H1047R	Substitution - Missense	
CGA-A7-A26H-0	1899666	1788350	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JU-0	1900064	1788748	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A08T-0	1899709	1788393	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-BH-A0BM-C	1899896	1788580	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-BH-A0DT-0	1899918	1788602	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972466	1972466	1858715	c.?	p.H1047R	Substitution - Missense	
1670198	1670198	1583484	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1419262	1419262	1329303	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135845	1135845	1048409	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135831	1135831	1048395	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1278873	1278873	1190169	c.?	p.Q546R	Substitution - Missense	
68	1860505	1751446	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703821	1703821	1611930	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703720	1703720	1611829	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1698523	1698523	1606641	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1443717	1443717	1367962	c.?	p.H1047R	Substitution - Missense	
1670312	1670312	1583598	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972377	1972377	1858626	c.?	p.H1047R	Substitution - Missense	
1193504	1193504	1105400	c.?	p.H1047R	Substitution - Missense	
MCF-7	904373	821918	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1301951	1301951	1213002	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135829	1135829	1048393	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972158	1972158	1858407	c.?	p.E542K	Substitution - Missense	
1709223	1709223	1617129	c.?	p.H1047R	Substitution - Missense	
T-47D	894091	811859	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329902	1329902	1240387	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135796	1135796	1048360	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419267	1419267	1329308	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
BT-483	1136343	1048907	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
E40069	894121	811889	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972403	1972403	1858652	c.?	p.H1047R	Substitution - Missense	
1124426	1124426	1037469	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1692048	1692048	1600313	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443709	1443709	1367954	c.?	p.H1047R	Substitution - Missense	
1297132	1297132	1208186	c.?	p.H1047R	Substitution - Missense	
1244898	1244898	1156604	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675733	1675733	1588613	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

CGA-JL-A3YX-0	2187718	2055996	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
1773304	1773304	1677544	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-JL-A3YX-0	2187718	2055996	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972419	1972419	1858668	c.?	p.H1047R	Substitution - Missense	
1017963	1017963	935121	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657029	1657029	1571684	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882709	1882709	1772829	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443948	1443948	1368193	c.?	p.E542K	Substitution - Missense	
OCUB-F	1289404	1200679	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD4127a	1331081	1241555	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972253	1972253	1858502	c.?	p.E545K	Substitution - Missense	
107424	1520481	1442856	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703819	1703819	1611928	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703843	1703843	1611952	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738920	1738920	1644751	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1530107	1530107	1452479	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1122692	1122692	1035736	c.(1624_1633)G>A	p.(542_545)E>K	Substitution - Missense	
1972510	1972510	1858759	c.?	p.H1047R	Substitution - Missense	
1703844	1703844	1611953	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419254	1419254	1329295	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135827	1135827	1048391	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329586	1329586	1240071	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1134427	1134427	1047087	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018922	1018922	935945	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-B6-A408-0	2187800	2056078	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135909	1135909	1048473	c.1252G>A	p.E418K	Substitution - Missense	3:178927974-178927974
1864117	1864117	1754970	c.?	p.K111N	Substitution - Missense	
1864117	1864117	1754970	c.?	p.H1047R	Substitution - Missense	
1443734	1443734	1367979	c.?	p.H1047R	Substitution - Missense	
1670207	1670207	1583493	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1720282	1720282	1627562	c.?	p.E545K	Substitution - Missense	
1124394	1124394	1037437	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1698880	1698880	1606998	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017188	1017188	934358	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244816	1244816	1156522	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1312224	1312224	1223133	c.?	p.E545K	Substitution - Missense	
1972483	1972483	1858732	c.?	p.H1047R	Substitution - Missense	
1972503	1972503	1858752	c.?	p.H1047R	Substitution - Missense	
1435078	1435078	1344436	c.?	p.H1047R	Substitution - Missense	
MCF7	2165024	2033436	c.?	p.E545K	Substitution - Missense	
1703740	1703740	1611849	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-BH-A1FE-0	1899979	1788663	c.331A>G	p.K111E	Substitution - Missense	3:178916944-178916944
CGA-AQ-A1H2-0	1899806	1788490	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

904473	904473	822018	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
901512	901512	819124	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904419	904419	821964	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
UACC-893	1289420	1200695	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0BD-0	1779579	1683578	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0HI-0	1899941	1788625	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-E2-A154-0	1900127	1788811	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244803	1244803	1156509	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703793	1703793	1611902	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530108	1530108	1452480	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1739295	1739295	1645016	c.?	p.H1047Y	Substitution - Missense	
1329729	1329729	1240214	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
MDA-MB-453	1136356	1048920	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698879	1698879	1606997	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-B6-A0IC-0	1899855	1788539	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135841	1135841	1048405	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JS-0	1900062	1788746	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JS-0	1900062	1788746	c.1030G>A	p.V344M	Substitution - Missense	3:178921548-178921548
CGA-BH-A18F-0	1899948	1788632	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A18F-0	1899948	1788632	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
CGA-A8-A095-0	1779384	1683383	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-A7-A0D9-0	1899657	1788341	c.1034A>C	p.N345T	Substitution - Missense	3:178921552-178921552
CGA-A8-A08Z-0	1899711	1788395	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0DE-0	1899910	1788594	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1692033	1692033	1600298	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1530088	1530088	1452460	c.3189_3190insA	p.Q1064fs*7	Insertion - Frameshift	3:178952134-178952135
1657031	1657031	1571686	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972142	1972142	1858391	c.?	p.E542K	Substitution - Missense	
1972446	1972446	1858695	c.?	p.H1047R	Substitution - Missense	
1244772	1244772	1156478	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
BT-474	1289383	1200658	c.333G>C	p.K111N	Substitution - Missense	3:178916946-178916946
1244792	1244792	1156498	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703865	1703865	1611974	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1419247	1419247	1329288	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972417	1972417	1858666	c.?	p.H1047R	Substitution - Missense	
1972533	1972533	1858782	c.?	p.H1047R	Substitution - Missense	
1972268	1972268	1858517	c.?	p.E545K	Substitution - Missense	
1738902	1738902	1644733	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1278877	1278877	1190173	c.?	p.H1047R	Substitution - Missense	
1312220	1312220	1223129	c.?	p.H1047R	Substitution - Missense	
1522789	1522789	1445161	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1972230	1972230	1858479	c.?	p.E545K	Substitution - Missense	
1329605	1329605	1240090	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

	1329746	1329746	1240231	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1312217	1312217	1223126	c.?	p.H1047R	Substitution - Missense	
MDA-MB-453	2165012	2033424		c.?	p.H1047R	Substitution - Missense	
	1244934	1244934	1156640	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1419234	1419234	1329275	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1738905	1738905	1644736	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1193562	1193562	1105458	c.?	p.E545K	Substitution - Missense	
	1193528	1193528	1105424	c.?	p.H1047R	Substitution - Missense	
	1134429	1134429	1047089	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1244905	1244905	1156611	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1017901	1017901	935059	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	E40066	894118	811886	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1738890	1738890	1644721	c.328G>A	p.E110K	Substitution - Missense	3:178916941-178916941
	1443616	1443616	1367861	c.?	p.H1047R	Substitution - Missense	
	1703834	1703834	1611943	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244776	1244776	1156482	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
	1124390	1124390	1037433	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1522792	1522792	1445164	c.3059C>T	p.A1020V	Substitution - Missense	3:178952004-178952004
	1692226	1692226	1600491	c.?	p.H1047R	Substitution - Missense	
	1134430	1134430	1047090	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1124261	1124261	1037304	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1176658	1176658	1088655	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1675760	1675760	1588626	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1670302	1670302	1583588	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1017893	1017893	935051	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1329895	1329895	1240380	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1738901	1738901	1644732	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1530106	1530106	1452478	c.3204_3205insTTCT	p.*1069fs*3	Insertion - Frameshift	3:178952149-178952150
	1443701	1443701	1367946	c.?	p.H1047L	Substitution - Missense	
	2042651	2042651	1923769	c.1633G>C	p.E545Q	Substitution - Missense	3:178936091-178936091
	2042651	2042651	1923769	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1698868	1698868	1606986	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1698515	1698515	1606633	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1698515	1698515	1606633	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1244773	1244773	1156479	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
	1443739	1443739	1367984	c.?	p.H1047R	Substitution - Missense	
CGA-GM-A2D9-C	2187740	2056018		c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1301976	1301976	1213027	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0DL-0	1899914	1788598		c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-GM-A2D9-C	2187740	2056018		c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
	1278871	1278871	1190167	c.?	p.E545K	Substitution - Missense	
	1972301	1972301	1858550	c.?	p.E545K	Substitution - Missense	
CGA-A8-A07E-0	1899679	1788363		c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553

CGA-A2-A0EN-0	1779288	1683287	c.3194A>T	p.H1065L	Substitution - Missense	3:178952139-178952139	
	1972481	1858730	c.?	p.H1047R	Substitution - Missense		
	BC120	1281086	c.?	p.H1047R	Substitution - Missense		
	1329906	1329906	1240391	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	107079	1520580	1442955	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0EN-0	1779288	1683287	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1738924	1738924	1644755	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
	904464	904464	822009	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	904438	904438	821983	c.2727C>G	p.F909L	Substitution - Missense	3:178947852-178947852
	1018919	1018919	935942	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1972375	1972375	1858624	c.?	p.H1047R	Substitution - Missense	
CGA-B6-A0RG-0	1899860	1788544	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1176656	1176656	1088653	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	904421	904421	821966	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1135871	1135871	1048435	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1135832	1135832	1048396	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244885	1244885	1156591	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972441	1972441	1858690	c.?	p.H1047R	Substitution - Missense	
	1972295	1972295	1858544	c.?	p.E545K	Substitution - Missense	
	1972487	1972487	1858736	c.?	p.H1047R	Substitution - Missense	
CGA-A2-A04W-0	1899603	1788287	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1738915	1738915	1644746	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1135836	1135836	1048400	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244811	1244811	1156517	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	Case1	1943617	1830527	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1972379	1972379	1858628	c.?	p.H1047R	Substitution - Missense	
	1134432	1134432	1047092	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1972356	1972356	1858605	c.?	p.H1047R	Substitution - Missense	
	1329716	1329716	1240201	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1676215	1676215	1588987	c.?	p.H1047R	Substitution - Missense	
	1835034	1835034	1730066	c.?	p.H1047R	Substitution - Missense	
	1435079	1435079	1344437	c.?	p.H1047R	Substitution - Missense	
	PD3985a	1280808	1192099	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1738899	1738899	1644730	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1675737	1675737	1588615	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-E2-A15P-0	1900148	1788832	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082	
CGA-E2-A10C-0	1900109	1788793	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091	
CGA-AN-A046-0	2187824	2056102	c.3062A>G	p.Y1021C	Substitution - Missense	3:178952007-178952007	
CGA-E9-A1RH-0	1900211	1788895	c.307_312delGAACCA	p.E103_P104delEP	Deletion - In frame	3:178916920-178916925	
	904454	904454	821999	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	2067946	2067946	1947739	c.?	p.E545K	Substitution - Missense	
	1329606	1329606	1240091	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244827	1244827	1156533	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

1676195	1676195	1588967	c.?	p.E542K	Substitution - Missense	
1972390	1972390	1858639	c.?	p.H1047R	Substitution - Missense	
1972266	1972266	1858515	c.?	p.E545K	Substitution - Missense	
1698853	1698853	1606971	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1522787	1522787	1445159	c.1637A>C	p.Q546P	Substitution - Missense	3:178936095-178936095
1244851	1244851	1156557	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1244780	1244780	1156486	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
1972204	1972204	1858453	c.?	p.E545K	Substitution - Missense	
1135866	1135866	1048430	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1443906	1443906	1368151	c.?	p.H1047R	Substitution - Missense	
1329828	1329828	1240313	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1278876	1278876	1190172	c.?	p.H1047R	Substitution - Missense	
1703742	1703742	1611851	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1321156	1321156	1232043	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1419251	1419251	1329292	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1122684	1122684	1035728	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676182	1676182	1588954	c.?	p.E545K	Substitution - Missense	
1419241	1419241	1329282	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698837	1698837	1606955	c.?	p.E542K	Substitution - Missense	
1703757	1703757	1611866	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244856	1244856	1156562	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
2131993	2131993	2006056	c.?	p.H1047R	Substitution - Missense	
1972193	1972193	1858442	c.?	p.E542K	Substitution - Missense	
1972256	1972256	1858505	c.?	p.E545K	Substitution - Missense	
1443716	1443716	1367961	c.?	p.H1047R	Substitution - Missense	
1703722	1703722	1611831	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1321127	1321127	1232014	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1193510	1193510	1105406	c.?	p.H1047R	Substitution - Missense	
1703788	1703788	1611897	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1193537	1193537	1105433	c.?	p.H1047R	Substitution - Missense	
1972492	1972492	1858741	c.?	p.H1047R	Substitution - Missense	
1691710	1691710	1599976	c.?	p.H1047R	Substitution - Missense	
1972525	1972525	1858774	c.?	p.H1047R	Substitution - Missense	
2107707	2107707	1985568	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1297124	1297124	1208178	c.?	p.H1047R	Substitution - Missense	
1135848	1135848	1048412	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904474	904474	822019	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244767	1244767	1156473	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1670199	1670199	1583485	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1124595	1124595	1037638	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
UACC-893	894092	811860	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E40049	894101	811869	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1301943	1301943	1212994	c.?	p.?	Substitution - Missense	

1972452	1972452	1858701	c.?	p.H1047R	Substitution - Missense	
1193569	1193569	1105465	c.?	p.E545K	Substitution - Missense	
1522791	1522791	1445163	c.3059C>T	p.A1020V	Substitution - Missense	3:178952004-178952004
E40064	894116	811884	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972225	1972225	1858474	c.?	p.E545K	Substitution - Missense	
1703790	1703790	1611899	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
SUM-190	904391	821936	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A07G-0	1899681	1788365	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A7-A26E-0	1899663	1788347	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329753	1329753	1240238	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1972532	1972532	1858781	c.?	p.H1047R	Substitution - Missense	
1972341	1972341	1858590	c.?	p.H1047L	Substitution - Missense	
1703867	1703867	1611976	c.3085G>C	p.D1029H	Substitution - Missense	3:178952030-178952030
1703867	1703867	1611976	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1135905	1135905	1048469	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1018401	1018401	935559	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1864116	1864116	1754969	c.?	p.K111N	Substitution - Missense	
1864116	1864116	1754969	c.?	p.H1047R	Substitution - Missense	
1972392	1972392	1858641	c.?	p.H1047R	Substitution - Missense	
Sample_I	2053348	1933595	c.?	p.H1047R	Substitution - Missense	
1703831	1703831	1611940	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901506	901506	819118	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244929	1244929	1156635	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017890	1017890	935048	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
Sample_I	2053348	1933595	c.?	p.E545K	Substitution - Missense	
1017837	1017837	934995	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972362	1972362	1858611	c.?	p.H1047R	Substitution - Missense	
1972423	1972423	1858672	c.?	p.H1047R	Substitution - Missense	
1435087	1435087	1344445	c.?	p.E542K	Substitution - Missense	
1321152	1321152	1232039	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419243	1419243	1329284	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972229	1972229	1858478	c.?	p.E545K	Substitution - Missense	
1018913	1018913	935936	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
T-47D	2165027	2033439	c.?	p.H1047R	Substitution - Missense	
1124602	1124602	1037645	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A0JF-0	1899782	1788466	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AO-A0JF-0	1899782	1788466	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
KPL-1	2165023	2033435	c.?	p.E545K	Substitution - Missense	
1972396	1972396	1858645	c.?	p.H1047R	Substitution - Missense	
1135872	1135872	1048436	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443964	1443964	1368209	c.?	p.H1047R	Substitution - Missense	
1329908	1329908	1240393	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972353	1972353	1858602	c.?	p.H1047R	Substitution - Missense	

1972146	1972146	1858395	c.?	p.E542K	Substitution - Missense	
1244937	1244937	1156643	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321138	1321138	1232025	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972275	1972275	1858524	c.?	p.E545K	Substitution - Missense	
1212748	1212748	1124615	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
904459	904459	822004	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E9-A1N5-0	1900185	1788869	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-A2-A3KC-0	2187891	2056169	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-B6-A0X7-0	1899873	1788557	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A0JE-0	1899781	1788465	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
901502	901502	819114	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193548	1193548	1105444	c.?	p.H1047Y	Substitution - Missense	
1329718	1329718	1240203	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1670306	1670306	1583592	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882688	1882688	1772808	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
UACC-893	2165015	2033427	c.?	p.H1047R	Substitution - Missense	
BSY-1	1436029	1345308	c.?	p.H1047R	Substitution - Missense	
1435083	1435083	1344441	c.?	p.E545K	Substitution - Missense	
1135891	1135891	1048455	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1419248	1419248	1329289	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738897	1738897	1644728	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443746	1443746	1367991	c.?	p.H1047R	Substitution - Missense	
2131994	2131994	2006057	c.?	p.H1047R	Substitution - Missense	
1972304	1972304	1858553	c.?	p.E545K	Substitution - Missense	
1698854	1698854	1606972	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017838	1017838	934996	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1193558	1193558	1105454	c.?	p.E545K	Substitution - Missense	
1972164	1972164	1858413	c.?	p.E542K	Substitution - Missense	
1703866	1703866	1611975	c.3155C>A	p.T1052K	Substitution - Missense	3:178952100-178952100
1972471	1972471	1858720	c.?	p.H1047R	Substitution - Missense	
1703721	1703721	1611830	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1972366	1972366	1858615	c.?	p.H1047R	Substitution - Missense	
1882681	1882681	1772801	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972435	1972435	1858684	c.?	p.H1047R	Substitution - Missense	
1443899	1443899	1368144	c.?	p.H1047R	Substitution - Missense	
E39847	894058	811826	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244874	1244874	1156580	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1297168	1297168	1208222	c.?	p.H701P	Substitution - Missense	
1297168	1297168	1208222	c.?	p.E707K	Substitution - Missense	
1297168	1297168	1208222	c.?	p.L719V	Substitution - Missense	
105532	1520447	1442822	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244822	1244822	1156528	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244844	1244844	1156550	c.1633G>C	p.E545Q	Substitution - Missense	3:178936091-178936091

1329724	1329724	1240209	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
BT-20	904350	821895	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
1691734	1691734	1600000	c.?	p.H1047R	Substitution - Missense	
BT-20	904350	821895	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698514	1698514	1606632	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
CGA-A8-A09Q-0	1899727	1788411	c.2265A>G	p.L755L	Substitution - coding silent	3:178941946-178941946
1244899	1244899	1156605	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0H3-0	1899934	1788618	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1972336	1972336	1858585	c.?	p.H1047L	Substitution - Missense	
1244800	1244800	1156506	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1193532	1193532	1105428	c.?	p.H1047R	Substitution - Missense	
1676175	1676175	1588947	c.?	p.H1047R	Substitution - Missense	
1135902	1135902	1048466	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972480	1972480	1858729	c.?	p.H1047R	Substitution - Missense	
1657034	1657034	1571689	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0CW-C	1899613	1788297	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1720338	1720338	1627618	c.?	p.E545K	Substitution - Missense	
1720257	1720257	1627537	c.?	p.H1047R	Substitution - Missense	
1972189	1972189	1858438	c.?	p.E542K	Substitution - Missense	
1972311	1972311	1858560	c.?	p.H1047L	Substitution - Missense	
1244832	1244832	1156538	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443698	1443698	1367943	c.?	p.E542K	Substitution - Missense	
1443638	1443638	1367883	c.?	p.H1047R	Substitution - Missense	
904461	904461	822006	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1302099	1302099	1213150	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-GM-A3NY-C	2187726	2056004	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1691703	1691703	1599969	c.?	p.H1047R	Substitution - Missense	
1972215	1972215	1858464	c.?	p.E545K	Substitution - Missense	
1709247	1709247	1617153	c.?	p.E545A	Substitution - Missense	
16	1971265	1857514	c.1624_1625GA>AG	p.E542R	Substitution - Missense	3:178936082-178936083
1212754	1212754	1124621	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1XY-0	1900085	1788769	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124596	1124596	1037639	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419268	1419268	1329309	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443728	1443728	1367973	c.?	p.H1047R	Substitution - Missense	
1698531	1698531	1606649	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443740	1443740	1367985	c.?	p.H1047R	Substitution - Missense	
1193500	1193500	1105396	c.?	p.H1047R	Substitution - Missense	
1297133	1297133	1208187	c.?	p.H1047R	Substitution - Missense	
1972151	1972151	1858400	c.?	p.E542K	Substitution - Missense	
1703829	1703829	1611938	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329749	1329749	1240234	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1135900	1135900	1048464	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082

CGA-A2-A25D-0	1899649	1788333	c.325_327delGAA	p.E109del	Deletion - In frame	3:178916938-178916940
	1212763	1124630	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244867	1156573	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	PD4120a	1241541	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	PD4120a	1241541	c.333G>C	p.K111N	Substitution - Missense	3:178916946-178916946
CGA-E2-A1L6-0	1900171	1788855	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1017843	935001	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1193545	1105441	c.?	p.H1047R	Substitution - Missense	
	1676183	1588955	c.?	p.H1047R	Substitution - Missense	
	1972139	1858388	c.?	p.E542K	Substitution - Missense	
	1017841	934999	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1124393	1037436	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
HF-11457	1507766	1430632	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	89061	1442879	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244853	1156559	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-B6-AOWY-C	1899870	1788554	c.327_335delAGAAAAGAT	p.E109_I112>D	Complex - deletion inframe	3:178916940-178916948
	2067947	1947740	c.?	p.M1043I	Substitution - Missense	
	1443715	1367960	c.?	p.H1047R	Substitution - Missense	
	1301931	1212982	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1301931	1212982	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1675758	1588625	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1017854	935012	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	BT-483	2033429	c.?	p.E542K	Substitution - Missense	
	1972388	1858637	c.?	p.H1047R	Substitution - Missense	
	1124424	1037467	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1321144	1232031	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1135864	1048428	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
SUM159PT	1136380	1048944	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1443699	1367944	c.?	p.E542K	Substitution - Missense	
MDA-MB-361	1348961	1259212	c.?	p.E545K	Substitution - Missense	
	1193560	1105456	c.?	p.E545K	Substitution - Missense	
	2053356	1933602	c.?	p.E545K	Substitution - Missense	
	2053356	1933602	c.?	p.H1047R	Substitution - Missense	
	1703734	1611843	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1135802	1048366	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972140	1858389	c.?	p.E542K	Substitution - Missense	
	1972330	1858579	c.?	p.H1047L	Substitution - Missense	
	1443627	1367872	c.?	p.H1047R	Substitution - Missense	
	1244873	1156579	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	904423	821968	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1135821	1048385	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1698529	1606647	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1134436	1047096	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1443949	1443949	1368194	c.?	p.E542K	Substitution - Missense	
1443631	1443631	1367876	c.?	p.H1047R	Substitution - Missense	
1972331	1972331	1858580	c.?	p.H1047L	Substitution - Missense	
1017892	1017892	935050	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972271	1972271	1858520	c.?	p.E545K	Substitution - Missense	
BC141	1281107	1192398	c.?	p.H1047L	Substitution - Missense	
1419246	1419246	1329287	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419264	1419264	1329305	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443644	1443644	1367889	c.?	p.H1047R	Substitution - Missense	
1329730	1329730	1240215	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972233	1972233	1858482	c.?	p.E545K	Substitution - Missense	
CGA-A2-A0EM-0	1899618	1788302	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-BH-A0HF-0	2187797	2056075	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-EW-A1J2-0	1900236	1788920	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135874	1135874	1048438	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124408	1124408	1037451	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JF-0	1900052	1788736	c.1193G>A	p.R398H	Substitution - Missense	3:178927430-178927430
1301939	1301939	1212990	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244823	1244823	1156529	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1530099	1530099	1452471	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-D8-A1JF-0	1900052	1788736	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244768	1244768	1156474	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1657049	1657049	1571704	c.1635G>C	p.E545D	Substitution - Missense	3:178936093-178936093
1244911	1244911	1156617	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904420	904420	821965	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972490	1972490	1858739	c.?	p.H1047R	Substitution - Missense	
1972448	1972448	1858697	c.?	p.H1047R	Substitution - Missense	
1703833	1703833	1611942	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MCF-7	1046936	963167	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1425159	1425159	1335187	c.?	p.H1047R	Substitution - Missense	
1972334	1972334	1858583	c.?	p.H1047L	Substitution - Missense	
904448	904448	821993	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212762	1212762	1124629	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1435086	1435086	1344444	c.?	p.E545K	Substitution - Missense	
1972476	1972476	1858725	c.?	p.H1047R	Substitution - Missense	
1134437	1134437	1047097	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2107729	2107729	1985590	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
PD4094a	1312952	1223861	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1329814	1329814	1240299	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1435081	1435081	1344439	c.?	p.H1047R	Substitution - Missense	
1972318	1972318	1858567	c.?	p.H1047L	Substitution - Missense	
1698871	1698871	1606989	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670317	1670317	1583603	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

2107712	2107712	1985573	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972549	1972549	1858798	c.?	p.H1047R	Substitution - Missense	
1972548	1972548	1858797	c.?	p.H1047R	Substitution - Missense	
1321145	1321145	1232032	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2047124	2047124	1927406	c.?	p.H1047R	Substitution - Missense	
901503	901503	819115	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901503	901503	819115	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AQ-A0Y5-0	1899805	1788489	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
1972219	1972219	1858468	c.?	p.E545K	Substitution - Missense	
1443960	1443960	1368205	c.?	p.H1047R	Substitution - Missense	
1882736	1882736	1772856	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419242	1419242	1329283	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904410	904410	821955	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
CGA-A7-A0CJ-0	1899656	1788340	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1301973	1301973	1213024	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670215	1670215	1583501	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124395	1124395	1037438	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1530101	1530101	1452473	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657040	1657040	1571695	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419253	1419253	1329294	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1297129	1297129	1208183	c.?	p.H1047R	Substitution - Missense	
1244918	1244918	1156624	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124402	1124402	1037445	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1018909	1018909	935932	c.3075C>T	p.T1025T	Substitution - coding silent	3:178952020-178952020
1193508	1193508	1105404	c.?	p.H1047R	Substitution - Missense	
SUM102PT	1046939	963170	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301941	1301941	1212992	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A2-A25C-0	1899648	1788332	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A24O-0	1899837	1788521	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-AO-A126-0	1899788	1788472	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A2-A0EO-0	1899619	1788303	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-D8-A27K-0	1900095	1788779	c.331_333delAAG	p.K111delK	Deletion - In frame	3:178916944-178916946
1675741	1675741	1588617	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972217	1972217	1858466	c.?	p.E545K	Substitution - Missense	
1244807	1244807	1156513	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972141	1972141	1858390	c.?	p.E542K	Substitution - Missense	
1018004	1018004	935162	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135899	1135899	1048463	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670308	1670308	1583594	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670208	1670208	1583494	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193523	1193523	1105419	c.?	p.H1047R	Substitution - Missense	
1244790	1244790	1156496	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
107778	1520603	1442978	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1329896	1329896	1240381	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972447	1972447	1858696	c.?	p.H1047R	Substitution - Missense	
1443962	1443962	1368207	c.?	p.H1047R	Substitution - Missense	
1301933	1301933	1212984	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1134423	1134423	1047083	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738894	1738894	1644725	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443629	1443629	1367874	c.?	p.H1047R	Substitution - Missense	
1703802	1703802	1611911	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676178	1676178	1588950	c.?	p.H1047R	Substitution - Missense	
1703769	1703769	1611878	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972292	1972292	1858541	c.?	p.E545K	Substitution - Missense	
904413	904413	821958	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670200	1670200	1583486	c.1633G>C	p.E545Q	Substitution - Missense	3:178936091-178936091
1657048	1657048	1571703	c.1635G>C	p.E545D	Substitution - Missense	3:178936093-178936093
1676214	1676214	1588986	c.?	p.H1047R	Substitution - Missense	
1972436	1972436	1858685	c.?	p.H1047R	Substitution - Missense	
1691691	1691691	1599957	c.?	p.N345K	Substitution - Missense	
1301963	1301963	1213014	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703820	1703820	1611929	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321151	1321151	1232038	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329567	1329567	1240052	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
904436	904436	821981	c.2102A>C	p.H701P	Substitution - Missense	3:178938860-178938860
BT-474	1136353	1048917	c.?	p.K111N	Substitution - Missense	
1972338	1972338	1858587	c.?	p.H1047L	Substitution - Missense	
1670309	1670309	1583595	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698867	1698867	1606985	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670212	1670212	1583498	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MCF-7	1136341	1048905	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972262	1972262	1858511	c.?	p.E545K	Substitution - Missense	
1301930	1301930	1212981	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703812	1703812	1611921	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972416	1972416	1858665	c.?	p.H1047R	Substitution - Missense	
1703852	1703852	1611961	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124157	1124157	1037200	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972227	1972227	1858476	c.?	p.E545K	Substitution - Missense	
1176655	1176655	1088652	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-E9-A229-0	1900216	1788900	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MCF-7	894096	811864	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972467	1972467	1858716	c.?	p.H1047R	Substitution - Missense	
904442	904442	821987	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018406	1018406	935564	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1321141	1321141	1232028	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135906	1135906	1048470	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553

1972289	1972289	1858538	c.?	p.E545K	Substitution - Missense	
E40072	894124	811892	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1720330	1720330	1627610	c.?	p.H1047R	Substitution - Missense	
904429	904429	821974	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124238	1124238	1037281	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1301925	1301925	1212976	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703845	1703845	1611954	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JN-0	1900060	1788744	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904431	904431	821976	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1301922	1301922	1212973	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972381	1972381	1858630	c.?	p.H1047R	Substitution - Missense	
1135853	1135853	1048417	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1435077	1435077	1344435	c.?	p.H1047R	Substitution - Missense	
1675744	1675744	1588618	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972265	1972265	1858514	c.?	p.E545K	Substitution - Missense	
1443606	1443606	1367851	c.?	p.H1047R	Substitution - Missense	
1297104	1297104	1208158	c.?	p.H1047L	Substitution - Missense	
1703772	1703772	1611881	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
4	1971253	1857502	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2067952	2067952	1947745	c.?	p.H1047R	Substitution - Missense	
1425134	1425134	1335162	c.?	p.H1047R	Substitution - Missense	
1443722	1443722	1367967	c.?	p.H1047R	Substitution - Missense	
1972332	1972332	1858581	c.?	p.H1047L	Substitution - Missense	
1670213	1670213	1583499	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0DD-C	1899909	1788593	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-EW-A1J5-0	1900238	1788922	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-EW-A1J5-0	1900238	1788922	c.2176G>A	p.E726K	Substitution - Missense	3:178938934-178938934
1703803	1703803	1611912	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419261	1419261	1329302	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972296	1972296	1858545	c.?	p.E545K	Substitution - Missense	
1124399	1124399	1037442	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321143	1321143	1232030	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321117	1321117	1232004	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972496	1972496	1858745	c.?	p.H1047R	Substitution - Missense	
2067953	2067953	1947746	c.?	p.H1047R	Substitution - Missense	
1676225	1676225	1588997	c.?	p.H1047R	Substitution - Missense	
1244942	1244942	1156648	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972387	1972387	1858636	c.?	p.H1047R	Substitution - Missense	
1193390	1193390	1105286	c.3184A>G	p.I1062V	Substitution - Missense	3:178952129-178952129
1698883	1698883	1607001	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972173	1972173	1858422	c.?	p.E542K	Substitution - Missense	
1329733	1329733	1240218	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419236	1419236	1329277	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1301950	1301950	1213001	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703726	1703726	1611835	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
HF-17468-(1)	1507747	1430613	c.1411C>G	p.P471A	Substitution - Missense	3:178928225-178928225
HF-17468-(1)	1507747	1430613	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124401	1124401	1037444	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1882754	1882754	1772874	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972350	1972350	1858599	c.?	p.H1047R	Substitution - Missense	
1244852	1244852	1156558	c.1637A>C	p.Q546P	Substitution - Missense	3:178936095-178936095
1124244	1124244	1037287	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
901505	901505	819117	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
SK-BR-5	1046938	963169	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698834	1698834	1606952	c.?	p.E542K	Substitution - Missense	
1244933	1244933	1156639	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1522788	1522788	1445160	c.1637A>C	p.Q546P	Substitution - Missense	3:178936095-178936095
SUM190PT	1046941	963172	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BC86	1281052	1192343	c.?	p.H1047R	Substitution - Missense	
BC84	1281050	1192341	c.?	p.H1047L	Substitution - Missense	
CGA-BH-A0EB-0	1779620	1683619	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329748	1329748	1240233	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A15E-0	1900136	1788820	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A12A-0	1899790	1788474	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
904468	904468	822013	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193551	1193551	1105447	c.?	p.E545K	Substitution - Missense	
BT-483	1046935	963166	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1321142	1321142	1232029	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124382	1124382	1037425	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670216	1670216	1583502	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301979	1301979	1213030	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1443708	1443708	1367953	c.?	p.H1047R	Substitution - Missense	
1278870	1278870	1190166	c.?	p.E542K	Substitution - Missense	
1670299	1670299	1583585	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
BC105	1281071	1192362	c.?	p.E545K	Substitution - Missense	
SUM-185	904390	821935	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A1EU-0	1899967	1788651	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1703738	1703738	1611847	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1691693	1691693	1599959	c.?	p.E542K	Substitution - Missense	
1244907	1244907	1156613	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1720342	1720342	1627622	c.?	p.E545K	Substitution - Missense	
CGA-A2-A0EY-0	1899626	1788310	c.353G>A	p.G118D	Substitution - Missense	3:178917478-178917478
1329728	1329728	1240213	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1135890	1135890	1048454	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
HCC202	1018461	935619	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321157	1321157	1232044	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090

PD4935a	1456086	1380059	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-BH-A42T-0	2187792	2056070	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703764	1703764	1611873	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329894	1329894	1240379	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972305	1972305	1858554	c.?	p.E545K	Substitution - Missense	
1135843	1135843	1048407	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135869	1135869	1048433	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244782	1244782	1156488	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
CGA-BH-A0HN-C	1779636	1683635	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1212744	1212744	1124611	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AR-A24T-0	1899842	1788526	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329736	1329736	1240221	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BT483	1018466	935624	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135819	1135819	1048383	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321124	1321124	1232011	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A8-A0A1-0	1899733	1788417	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443753	1443753	1367998	c.?	p.H1047R	Substitution - Missense	
CGA-E2-A1L8-0	1900173	1788857	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135867	1135867	1048431	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1212759	1212759	1124626	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124600	1124600	1037643	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244948	1244948	1156654	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530089	1530089	1452461	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698510	1698510	1606628	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1972222	1972222	1858471	c.?	p.E545K	Substitution - Missense	
1698510	1698510	1606628	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1691786	1691786	1600052	c.?	p.H1047R	Substitution - Missense	
1244916	1244916	1156622	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329897	1329897	1240382	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AR-A2LK-0	2187813	2056091	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124599	1124599	1037642	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329899	1329899	1240384	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675743	1675743	1588618	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703723	1703723	1611832	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
HF-17410-(1)	1507760	1430626	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1676197	1676197	1588969	c.?	p.H1047R	Substitution - Missense	
1193533	1193533	1105429	c.?	p.H1047R	Substitution - Missense	
1018407	1018407	935565	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
CGA-C8-A1HF-0	1900019	1788703	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A1HF-0	1900019	1788703	c.1833T>G	p.V611V	Substitution - coding silent	3:178937445-178937445
CGA-A2-A0YK-0	1779319	1683318	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-C8-A130-0	1900010	1788694	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1XM-C	1900077	1788761	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082

CGA-EW-A1P5-0	1900248	1788932	c.1364_1365insG	p.L456fs*13	Insertion - Frameshift	3:178928086-178928087
CGA-EW-A1P5-0	1900248	1788932	c.1338_1364del27	p447_L455delPVPHGLEI	Deletion - In frame	3:178928060-178928086
PD3988a	1280814	1192105	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-EW-A1PE-C	1900255	1788939	c.3073A>G	p.T1025A	Substitution - Missense	3:178952018-178952018
CGA-EW-A1PE-C	1900255	1788939	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
CGA-BH-A0BO-C	1899897	1788581	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A0BF-0	1899892	1788576	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1193496	1193496	1105392	c.?	p.H1047R	Substitution - Missense	
SA223	1659993	1574321	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212761	1212761	1124628	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244879	1244879	1156585	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972409	1972409	1858658	c.?	p.H1047R	Substitution - Missense	
103977	1520471	1442846	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244891	1244891	1156597	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972497	1972497	1858746	c.?	p.H1047R	Substitution - Missense	
1124127	1124127	1037170	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1321119	1321119	1232006	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972299	1972299	1858548	c.?	p.E545K	Substitution - Missense	
1665028	1665028	1578478	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972397	1972397	1858646	c.?	p.H1047R	Substitution - Missense	
1329821	1329821	1240306	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135877	1135877	1048441	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1676172	1676172	1588944	c.?	p.H1047R	Substitution - Missense	
1443696	1443696	1367941	c.?	p.E542K	Substitution - Missense	
1321149	1321149	1232036	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2107710	2107710	1985571	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972393	1972393	1858642	c.?	p.H1047R	Substitution - Missense	
1675753	1675753	1588623	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882678	1882678	1772798	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1301956	1301956	1213007	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321121	1321121	1232008	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1301935	1301935	1212986	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703765	1703765	1611874	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135806	1135806	1048370	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738929	1738929	1644760	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1135908	1135908	1048472	c.1252G>A	p.E418K	Substitution - Missense	3:178927974-178927974
1244778	1244778	1156484	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
2042648	2042648	1923766	c.1697C>T	p.P566L	Substitution - Missense	3:178937016-178937016
1212766	1212766	1124633	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1278881	1278881	1190177	c.?	p.H1047R	Substitution - Missense	
1297130	1297130	1208184	c.?	p.H1047R	Substitution - Missense	
1329595	1329595	1240080	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676269	1676269	1589041	c.?	p.E542K	Substitution - Missense	

CGA-A2-A0EW-0	1899624	1788308	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095	
	1329580	1240065	c.1573G>A	p.E525K	Substitution - Missense	3:178936031-178936031	
	1124111	1037154	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	901518	819130	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1703733	1611842	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082	
	1972363	1858612	c.?	p.H1047R	Substitution - Missense		
	1698882	1607000	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1972544	1858793	c.?	p.H1047R	Substitution - Missense		
CGA-BH-A0EA-0	1899928	1788612	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1018921	935944	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085	
CGA-GM-A2DH-(	2187734	2056012	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095	
CGA-GM-A2DH-(	2187734	2056012	c.3019G>C	p.G1007R	Substitution - Missense	3:178951964-178951964	
	1419235	1329276	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1530097	1452469	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
MDA-MB-453	1018468	935626	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	E40052	894104	811872	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
TCGA-E2-A1IL-0'	1900167	1788851	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	20	1860504	1751445	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1738917	1738917	1644748	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A1F8-0	1899976	1788660	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1329601	1329601	1240086	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1017185	1017185	934355	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1709222	1709222	1617128	c.?	p.H1047R	Substitution - Missense	
	1018924	1018924	935947	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HF-11219	1507802	1430668	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085	
	1443748	1443748	1367993	c.?	p.H1047R	Substitution - Missense	
	1297128	1297128	1208182	c.?	p.H1047R	Substitution - Missense	
	1193386	1193386	1105282	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A2L8-0	2187793	2056071	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090	
	1972294	1972294	1858543	c.?	p.E545K	Substitution - Missense	
	1193544	1193544	1105440	c.?	p.H1047R	Substitution - Missense	
	BC101	1281067	1192358	c.?	p.E1012K	Substitution - Missense	
	2067933	2067933	1947726	c.?	p.N345K	Substitution - Missense	
	1017896	1017896	935054	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1135810	1135810	1048374	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1443607	1443607	1367852	c.?	p.H1047R	Substitution - Missense	
	1972161	1972161	1858410	c.?	p.E542K	Substitution - Missense	
	1124411	1124411	1037454	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1698877	1698877	1606995	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1124248	1124248	1037291	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1124122	1124122	1037165	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1443902	1443902	1368147	c.?	p.H1047R	Substitution - Missense	
	1698838	1698838	1606956	c.?	p.E542K	Substitution - Missense	

	1193563	1193563	1105459	c.?	p.E545K	Substitution - Missense	
CGA-E2-A14Y-0	1900122	1788806	1788806	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1329578	1329578	1240063	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1738892	1738892	1644723	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
	1312252	1312252	1223161	c.?	p.E542K	Substitution - Missense	
	1124606	1124606	1037649	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1135888	1135888	1048452	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1301946	1301946	1212997	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1321123	1321123	1232010	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1135885	1135885	1048449	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1329579	1329579	1240064	c.1568T>C	p.L523S	Substitution - Missense	3:178936026-178936026
	1301946	1301946	1212997	c.3085G>C	p.D1029H	Substitution - Missense	3:178952030-178952030
	1703779	1703779	1611888	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
CGA-GM-A3XN-C	2187723	2056001	2056001	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-AC-A23C-0	1899740	1788424	1788424	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
PD3856a	1301769	1212822	1212822	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972383	1972383	1858632	c.?	p.H1047R	Substitution - Missense	
	1244887	1244887	1156593	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	904407	904407	821952	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
	1972444	1972444	1858693	c.?	p.H1047R	Substitution - Missense	
	1670321	1670321	1583607	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1419231	1419231	1329272	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1135816	1135816	1048380	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HCC1954	904369	821914	821914	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1675756	1675756	1588624	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244884	1244884	1156590	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1124250	1124250	1037293	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	2067944	2067944	1947737	c.?	p.E542K	Substitution - Missense	
	1122690	1122690	1035734	c.(1624_1633)G>A	p.(542_545)E>K	Substitution - Missense	
	1676234	1676234	1589006	c.?	p.E545K	Substitution - Missense	
	1018392	1018392	935550	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HF-11334	1507782	1430648	1430648	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972429	1972429	1858678	c.?	p.H1047R	Substitution - Missense	
	1329734	1329734	1240219	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1443640	1443640	1367885	c.?	p.H1047R	Substitution - Missense	
	1972528	1972528	1858777	c.?	p.H1047R	Substitution - Missense	
	1244785	1244785	1156491	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1329581	1329581	1240066	c.1592T>C	p.L531P	Substitution - Missense	3:178936050-178936050
BC5	1280971	1192262	1192262	c.?	p.H1047R	Substitution - Missense	
	1329726	1329726	1240211	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1882660	1882660	1772780	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1972404	1972404	1858653	c.?	p.H1047R	Substitution - Missense	
	1122681	1122681	1035725	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1124266	1124266	1037309	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904418	904418	821963	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670316	1670316	1583602	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703815	1703815	1611924	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135809	1135809	1048373	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244835	1244835	1156541	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
BC44	1281010	1192301	c.?	p.H1047R	Substitution - Missense	
1301971	1301971	1213022	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD4128a	1331083	1241557	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135839	1135839	1048403	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1835028	1835028	1730060	c.?	p.H1047R	Substitution - Missense	
1124254	1124254	1037297	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2042676	2042676	1923794	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670326	1670326	1583612	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AC-A3TN-0	2187831	2056109	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135870	1135870	1048434	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2042676	2042676	1923794	c.3143A>G	p.H1048R	Substitution - Missense	3:178952088-178952088
1972493	1972493	1858742	c.?	p.H1047R	Substitution - Missense	
1972323	1972323	1858572	c.?	p.H1047L	Substitution - Missense	
1972203	1972203	1858452	c.?	p.E545K	Substitution - Missense	
1193517	1193517	1105413	c.?	p.H1047R	Substitution - Missense	
1703839	1703839	1611948	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670314	1670314	1583600	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703760	1703760	1611869	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-E9-A226-0	1900213	1788897	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1193506	1193506	1105402	c.?	p.H1047R	Substitution - Missense	
1972550	1972550	1858799	c.?	p.H1047R	Substitution - Missense	
1244928	1244928	1156634	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HCC1954	1430345	1339759	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135847	1135847	1048411	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-EW-A11X-0	1900232	1788916	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904435	904435	821980	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135882	1135882	1048446	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972297	1972297	1858546	c.?	p.E545K	Substitution - Missense	
1193525	1193525	1105421	c.?	p.H1047R	Substitution - Missense	
CGA-BH-A0DP-0	1899916	1788600	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972421	1972421	1858670	c.?	p.H1047R	Substitution - Missense	
2053338	2053338	1933587	c.?	p.E545K	Substitution - Missense	
1657050	1657050	1571705	c.1635G>C	p.E545D	Substitution - Missense	3:178936093-178936093
1972422	1972422	1858671	c.?	p.H1047R	Substitution - Missense	
1244824	1244824	1156530	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244859	1244859	1156565	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
103850	1520536	1442911	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

PD3989a	1280816	1192107	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1698839	1698839	1606957	c.?	p.E542K	Substitution - Missense	
1329598	1329598	1240083	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698885	1698885	1607003	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972245	1972245	1858494	c.?	p.E545K	Substitution - Missense	
1443947	1443947	1368192	c.?	p.E542K	Substitution - Missense	
1301965	1301965	1213016	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1720281	1720281	1627561	c.?	p.E545K	Substitution - Missense	
1017888	1017888	935046	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1321126	1321126	1232013	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
MDA-MB-361	1289397	1200672	c.1700A>G	p.K567R	Substitution - Missense	3:178937019-178937019
1244903	1244903	1156609	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244906	1244906	1156612	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244834	1244834	1156540	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
MDA-MB-361	1289397	1200672	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193556	1193556	1105452	c.?	p.E545K	Substitution - Missense	
1703739	1703739	1611848	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972478	1972478	1858727	c.?	p.H1047R	Substitution - Missense	
2131996	2131996	2006059	c.?	p.H1047R	Substitution - Missense	
1738930	1738930	1644761	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1244890	1244890	1156596	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698516	1698516	1606634	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1017899	1017899	935057	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703774	1703774	1611883	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972220	1972220	1858469	c.?	p.E545K	Substitution - Missense	
BC14	1280980	1192271	c.?	p.E545K	Substitution - Missense	
1329819	1329819	1240304	c.1371C>G	p.N457K	Substitution - Missense	3:178928093-178928093
1018386	1018386	935544	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972195	1972195	1858444	c.?	p.E542Q	Substitution - Missense	
1212747	1212747	1124614	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-BH-A0H9-0	1899938	1788622	c.3019G>C	p.G1007R	Substitution - Missense	3:178951964-178951964
1676266	1676266	1589038	c.?	p.E542K	Substitution - Missense	
1134422	1134422	1047082	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
901514	901514	819126	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244794	1244794	1156500	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
904412	904412	821957	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1244833	1244833	1156539	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244914	1244914	1156620	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738916	1738916	1644747	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329905	1329905	1240390	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530105	1530105	1452477	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1698845	1698845	1606963	c.?	p.E545K	Substitution - Missense	
1244951	1244951	1156657	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1703842	1703842	1611951	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443737	1443737	1367982	c.?	p.H1047R	Substitution - Missense	
904443	904443	821988	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
T47D	1289418	1200693	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301972	1301972	1213023	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329594	1329594	1240079	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2067908	2067908	1947701	c.?	p.E542K	Substitution - Missense	
1972145	1972145	1858394	c.?	p.E542K	Substitution - Missense	
1698506	1698506	1606624	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703786	1703786	1611895	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972456	1972456	1858705	c.?	p.H1047R	Substitution - Missense	
1522786	1522786	1445158	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1675751	1675751	1588622	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972410	1972410	1858659	c.?	p.H1047R	Substitution - Missense	
1972255	1972255	1858504	c.?	p.E545K	Substitution - Missense	
1244866	1244866	1156572	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135860	1135860	1048424	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1435076	1435076	1344434	c.?	p.H1047R	Substitution - Missense	
107085	1520540	1442915	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244946	1244946	1156652	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329823	1329823	1240308	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1659241	1659241	1573571	c.3120G>A	p.M1040I	Substitution - Missense	3:178952065-178952065
CGA-A2-A0D3-0	1899616	1788300	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212757	1212757	1124624	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301958	1301958	1213009	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2042658	2042658	1923776	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1419260	1419260	1329301	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1134425	1134425	1047085	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972531	1972531	1858780	c.?	p.H1047R	Substitution - Missense	
108752	1520594	1442969	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
PD3905a	1230729	1142532	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972512	1972512	1858761	c.?	p.H1047R	Substitution - Missense	
1329816	1329816	1240301	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972427	1972427	1858676	c.?	p.H1047R	Substitution - Missense	
BC122	1281088	1192379	c.?	p.H1047R	Substitution - Missense	
1135828	1135828	1048392	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904409	904409	821954	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
1017982	1017982	935140	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
CGA-BH-A0EE-0	1899929	1788613	c.2296C>T	p.L766F	Substitution - Missense	3:178942489-178942489
BC29	1280995	1192286	c.?	p.E545K	Substitution - Missense	
1329600	1329600	1240085	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A274-0	1900033	1788717	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-B6-A0WW-C	1899869	1788553	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1972276	1972276	1858525	c.?	p.E545K	Substitution - Missense	
2042636	2042636	1923754	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443612	1443612	1367857	c.?	p.H1047R	Substitution - Missense	
1443963	1443963	1368208	c.?	p.H1047R	Substitution - Missense	
1972432	1972432	1858681	c.?	p.H1047R	Substitution - Missense	
1882744	1882744	1772864	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1018385	1018385	935543	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530102	1530102	1452474	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972407	1972407	1858656	c.?	p.H1047R	Substitution - Missense	
CGA-E2-A14V-0	1900119	1788803	c.3130A>T	p.N1044Y	Substitution - Missense	3:178952075-178952075
1738914	1738914	1644745	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124252	1124252	1037295	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301978	1301978	1213029	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1312250	1312250	1223159	c.?	p.E545K	Substitution - Missense	
1972150	1972150	1858399	c.?	p.E542K	Substitution - Missense	
1972312	1972312	1858561	c.?	p.H1047L	Substitution - Missense	
1017189	1017189	934359	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HCC1954	1308993	1219938	c.?	p.H1047R	Substitution - Missense	
CGA-BH-A0BT-0	1899902	1788586	c.1097C>G	p.P366R	Substitution - Missense	3:178922328-178922328
CGA-BH-A0BT-0	1899902	1788586	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017897	1017897	935055	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972502	1972502	1858751	c.?	p.H1047R	Substitution - Missense	
1301952	1301952	1213003	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244940	1244940	1156646	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244897	1244897	1156603	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329909	1329909	1240394	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2067950	2067950	1947743	c.?	p.H1047R	Substitution - Missense	
1972439	1972439	1858688	c.?	p.H1047R	Substitution - Missense	
1244950	1244950	1156656	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A06Q-0	1779335	1683334	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329572	1329572	1240057	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1443955	1443955	1368200	c.?	p.H1047R	Substitution - Missense	
1972345	1972345	1858594	c.?	p.H1047L	Substitution - Missense	
HCC1954	1136367	1048931	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017183	1017183	934353	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1675735	1675735	1588614	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
99797	1520436	1442811	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-A8-A07B-0	1899677	1788361	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A03N-0	1899770	1788454	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-EW-A2FV-C	2187747	2056025	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A1KR-C	1899799	1788483	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A1KR-C	1899799	1788483	c.3012G>A	p.M1004I	Substitution - Missense	3:178951957-178951957
1972249	1972249	1858498	c.?	p.E545K	Substitution - Missense	

1017184	1017184	934354	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904401	904401	821946	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
904401	904401	821946	c.3073A>T	p.T1025S	Substitution - Missense	3:178952018-178952018
1244802	1244802	1156508	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972511	1972511	1858760	c.?	p.H1047R	Substitution - Missense	
1329597	1329597	1240082	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329754	1329754	1240239	c.3146G>C	p.G1049A	Substitution - Missense	3:178952091-178952091
1193527	1193527	1105423	c.?	p.H1047R	Substitution - Missense	
1018916	1018916	935939	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2067932	2067932	1947725	c.?	p.N345K	Substitution - Missense	
2042667	2042667	1923785	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1530109	1530109	1452481	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2042654	2042654	1923772	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904422	904422	821967	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244877	1244877	1156583	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972148	1972148	1858397	c.?	p.E542K	Substitution - Missense	
1244829	1244829	1156535	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1425162	1425162	1335190	c.?	p.H1047R	Substitution - Missense	
1972152	1972152	1858401	c.?	p.E542K	Substitution - Missense	
1676272	1676272	1589044	c.?	p.H1047R	Substitution - Missense	
1443952	1443952	1368197	c.?	p.H1047R	Substitution - Missense	
1297155	1297155	1208209	c.?	p.H1047L	Substitution - Missense	
1972477	1972477	1858726	c.?	p.H1047R	Substitution - Missense	
1443738	1443738	1367983	c.?	p.H1047R	Substitution - Missense	
1698844	1698844	1606962	c.?	p.E545K	Substitution - Missense	
1703724	1703724	1611833	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135800	1135800	1048364	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017176	1017176	934346	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1124233	1124233	1037276	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
2131987	2131987	2006050	c.?	p.E545K	Substitution - Missense	
1972522	1972522	1858771	c.?	p.H1047R	Substitution - Missense	
1972267	1972267	1858516	c.?	p.E545K	Substitution - Missense	
1329815	1329815	1240300	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1018910	1018910	935933	c.3075C>T	p.T1025T	Substitution - coding silent	3:178952020-178952020
904446	904446	821991	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
103828	1520502	1442877	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HCC202	1136360	1048924	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2053350	2053350	1933596	c.?	p.E545K	Substitution - Missense	
1972547	1972547	1858796	c.?	p.H1047R	Substitution - Missense	
1972530	1972530	1858779	c.?	p.H1047R	Substitution - Missense	
1698862	1698862	1606980	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124181	1124181	1037224	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904430	904430	821975	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

1972513	1972513	1858762	c.?	p.H1047R	Substitution - Missense	
CGA-BH-A0BV-0	1899903	1788587	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972284	1972284	1858533	c.?	p.E545K	Substitution - Missense	
1698866	1698866	1606984	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329831	1329831	1240316	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E40054	894106	811874	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-BH-A0B0-0	1899883	1788567	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1134434	1134434	1047094	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1691745	1691745	1600011	c.?	p.H1047R	Substitution - Missense	
1972457	1972457	1858706	c.?	p.H1047R	Substitution - Missense	
1321148	1321148	1232035	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882750	1882750	1772870	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JH-0	1900054	1788738	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972240	1972240	1858489	c.?	p.E545K	Substitution - Missense	
2107721	2107721	1985582	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
SUM102PT	1289410	1200685	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1657036	1657036	1571691	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E2-A15E-0	1900137	1788821	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124418	1124418	1037461	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135811	1135811	1048375	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244880	1244880	1156586	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670202	1670202	1583488	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972176	1972176	1858425	c.?	p.E542K	Substitution - Missense	
1972517	1972517	1858766	c.?	p.H1047R	Substitution - Missense	
1972469	1972469	1858718	c.?	p.H1047R	Substitution - Missense	
CGA-A2-A0EV-0	1899623	1788307	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0EV-0	1899623	1788307	c.1405_1406insATA	p.E469>DK	Complex - insertion inframe	3:178928219-178928220
CGA-E2-A15C-0	1900134	1788818	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1193507	1193507	1105403	c.?	p.H1047R	Substitution - Missense	
1698873	1698873	1606991	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MCF-7	1018463	935621	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1698519	1698519	1606637	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1972504	1972504	1858753	c.?	p.H1047R	Substitution - Missense	
1738913	1738913	1644744	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E40062	894114	811882	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972209	1972209	1858458	c.?	p.E545K	Substitution - Missense	
1691709	1691709	1599975	c.?	p.H1047R	Substitution - Missense	
1244912	1244912	1156618	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
SA056	1659940	1574268	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972216	1972216	1858465	c.?	p.E545K	Substitution - Missense	
904457	904457	822002	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1212764	1212764	1124631	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135817	1135817	1048381	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1419263	1419263	1329304	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972171	1972171	1858420	c.?	p.E542K	Substitution - Missense	
1244919	1244919	1156625	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
E40046	894098	811866	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
1443605	1443605	1367850	c.?	p.H1047R	Substitution - Missense	
CGA-E9-A1NH-0	1900194	1788878	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703747	1703747	1611856	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972485	1972485	1858734	c.?	p.H1047R	Substitution - Missense	
1972449	1972449	1858698	c.?	p.H1047R	Substitution - Missense	
1835036	1835036	1730068	c.?	p.H1047R	Substitution - Missense	
CGA-A8-A07Z-0	1899689	1788373	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698507	1698507	1606625	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
MCF-7	1017161	934331	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
101055	1520465	1442840	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1017191	1017191	934361	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670315	1670315	1583601	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321120	1321120	1232007	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193565	1193565	1105461	c.?	p.E545K	Substitution - Missense	
CGA-A2-A0CS-0	1899610	1788294	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A0JA-0	1899777	1788461	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-B6-A1KI-0	1899876	1788560	c.1637A>C	p.Q546P	Substitution - Missense	3:178936095-178936095
1972380	1972380	1858629	c.?	p.H1047R	Substitution - Missense	
1193539	1193539	1105435	c.?	p.H1047R	Substitution - Missense	
1135875	1135875	1048439	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
E40070	894122	811890	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244813	1244813	1156519	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321146	1321146	1232033	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244812	1244812	1156518	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1244913	1244913	1156619	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329602	1329602	1240087	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329603	1329603	1240088	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124603	1124603	1037646	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244846	1244846	1156552	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1134441	1134441	1047101	c.1625A>T	p.E542V	Substitution - Missense	3:178936083-178936083
1972558	1972558	1858807	c.?	p.H1047R	Substitution - Missense	
1670211	1670211	1583497	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244845	1244845	1156551	c.1633G>C	p.E545Q	Substitution - Missense	3:178936091-178936091
1017177	1017177	934347	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
904467	904467	822012	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676210	1676210	1588982	c.?	p.E545K	Substitution - Missense	
904447	904447	821992	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135884	1135884	1048448	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124409	1124409	1037452	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1124412	1124412	1037455	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972556	1972556	1858805	c.?	p.H1047R	Substitution - Missense	
1312244	1312244	1223153	c.?	p.H1047R	Substitution - Missense	
BT474	1018460	935618	c.333G>C	p.K111N	Substitution - Missense	3:178916946-178916946
BT-474	1046934	963165	c.333G>C	p.K111N	Substitution - Missense	3:178916946-178916946
1329837	1329837	1240322	c.3068G>T	p.R1023L	Substitution - Missense	3:178952013-178952013
1972555	1972555	1858804	c.?	p.H1047R	Substitution - Missense	
1124247	1124247	1037290	c.1636C>G	p.Q546E	Substitution - Missense	3:178936094-178936094
1972376	1972376	1858625	c.?	p.H1047R	Substitution - Missense	
1972382	1972382	1858631	c.?	p.H1047R	Substitution - Missense	
2047123	2047123	1927405	c.?	p.H1047R	Substitution - Missense	
1329829	1329829	1240314	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901511	901511	819123	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738928	1738928	1644759	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1675742	1675742	1588617	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703836	1703836	1611945	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1665034	1665034	1578484	c.1618C>T	p.L540F	Substitution - Missense	3:178936076-178936076
MCF10DCIS	1219447	1131290	c.?	p.H1047R	Substitution - Missense	
1670323	1670323	1583609	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1419259	1419259	1329300	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1709241	1709241	1617147	c.?	p.E545K	Substitution - Missense	
1972280	1972280	1858529	c.?	p.E545K	Substitution - Missense	
1193519	1193519	1105415	c.?	p.H1047R	Substitution - Missense	
1703752	1703752	1611861	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193530	1193530	1105426	c.?	p.H1047R	Substitution - Missense	
1698833	1698833	1606951	c.?	p.E542K	Substitution - Missense	
1297103	1297103	1208157	c.?	p.E545K	Substitution - Missense	
1443617	1443617	1367862	c.?	p.H1047R	Substitution - Missense	
1864113	1864113	1754966	c.?	p.E542K	Substitution - Missense	
1329599	1329599	1240084	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
UACC-893	1136362	1048926	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972250	1972250	1858499	c.?	p.E545K	Substitution - Missense	
CGA-D8-A1XO-0	1900078	1788762	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972519	1972519	1858768	c.?	p.H1047R	Substitution - Missense	
1972205	1972205	1858454	c.?	p.E545K	Substitution - Missense	
BT-20	1046932	963163	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
1691706	1691706	1599972	c.?	p.H1047R	Substitution - Missense	
BT-20	1046932	963163	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244763	1244763	1156469	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
1972194	1972194	1858443	c.?	p.E542K	Substitution - Missense	
1709206	1709206	1617112	c.?	p.H1047L	Substitution - Missense	
1135852	1135852	1048416	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904427	904427	821972	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

1972194	1972194	1858443	c.?	p.E545K	Substitution - Missense	
1972170	1972170	1858419	c.?	p.E542K	Substitution - Missense	
1972184	1972184	1858433	c.?	p.E542K	Substitution - Missense	
1301945	1301945	1212996	c.3074C>T	p.T1025I	Substitution - Missense	3:178952019-178952019
1124407	1124407	1037450	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244876	1244876	1156582	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675738	1675738	1588615	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1419258	1419258	1329299	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135807	1135807	1048371	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124265	1124265	1037308	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017181	1017181	934351	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135844	1135844	1048408	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
901504	901504	819116	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972470	1972470	1858719	c.?	p.H1047R	Substitution - Missense	
1972402	1972402	1858651	c.?	p.H1047R	Substitution - Missense	
1244921	1244921	1156627	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017835	1017835	934993	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1193388	1193388	1105284	c.1598C>T	p.A533V	Substitution - Missense	3:178936056-178936056
1017190	1017190	934360	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124420	1124420	1037463	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703799	1703799	1611908	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1691733	1691733	1599999	c.?	p.H1047R	Substitution - Missense	
1972443	1972443	1858692	c.?	p.H1047R	Substitution - Missense	
1244908	1244908	1156614	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703795	1703795	1611904	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MDA-MB-468	1018467	935625	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
MDA-MB-361	1018464	935622	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
TCGA-C8-A278-0	1900035	1788719	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
TCGA-C8-A278-0	1900035	1788719	c.3118A>G	p.M1040V	Substitution - Missense	3:178952063-178952063
1972149	1972149	1858398	c.?	p.E542K	Substitution - Missense	
1244882	1244882	1156588	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-EW-A1P0-0	1900244	1788928	c.2816A>G	p.D939G	Substitution - Missense	3:178948044-178948044
1329835	1329835	1240320	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124398	1124398	1037441	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
TCGA-E2-A1B4-0	1900155	1788839	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1124267	1124267	1037310	c.3139C>T	p.H1047Y	Substitution - Missense	3:178952084-178952084
1124267	1124267	1037310	c.?	p.H1048L	Substitution - Missense	
1972418	1972418	1858667	c.?	p.H1047R	Substitution - Missense	
1244902	1244902	1156608	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AO-A03M-C	2187822	2056100	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-E2-A11N-0	1900168	1788852	c.2702G>T	p.C901F	Substitution - Missense	3:178947827-178947827
1244861	1244861	1156567	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1670196	1670196	1583482	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082

TCGA-E2-A1IN-0	1900168	1788852	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
TCGA-A2-A25A-0	1899646	1788330	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
TCGA-A8-A08B-0	1899697	1788381	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
TCGA-D8-A1Y1-0	1900088	1788772	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
TCGA-D8-A1Y1-0	1900088	1788772	c.210C>T	p.F70F	Substitution - coding silent	3:178916823-178916823
TCGA-GM-A2DI-0	2187733	2056011	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1193501	1193501	c.?	p.H1047R	Substitution - Missense	
	1443710	1443710	c.?	p.H1047R	Substitution - Missense	
	1972321	1972321	c.?	p.H1047L	Substitution - Missense	
	1703862	1703862	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1124417	1124417	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1670319	1670319	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	901520	901520	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1018404	1018404	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1443619	1443619	c.?	p.H1047R	Substitution - Missense	
	1329820	1329820	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MDA361	1017160	934330	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1443744	1443744	c.?	p.H1047R	Substitution - Missense	
	1135842	1135842	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1443743	1443743	c.?	p.H1047R	Substitution - Missense	
	1703783	1703783	c.3203_3204insA	p.N1068fs*5	Insertion - Frameshift	3:178952148-178952149
	1244799	1244799	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1670221	1670221	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1124262	1124262	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1691696	1691696	c.?	p.E545K	Substitution - Missense	
MDA-MB-361	1136355	1048919	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	2067945	2067945	c.?	p.E545K	Substitution - Missense	
	1018384	1018384	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	901500	901500	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1244896	1244896	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1703798	1703798	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1657045	1657045	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1665031	1665031	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972315	1972315	c.?	p.H1047L	Substitution - Missense	
	1124126	1124126	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1443725	1443725	c.?	p.H1047R	Substitution - Missense	
TCGA-AO-A0J5-0	1779457	1683456	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1703859	1703859	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1443908	1443908	c.?	p.H1047R	Substitution - Missense	
	1443724	1443724	c.?	p.H1047R	Substitution - Missense	
	E40071	894123	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1124384	1124384	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1297106	1297106	c.?	p.H1047R	Substitution - Missense	

1124413	1124413	1037456	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2042673	2042673	1923791	c.?	p.?	Unknown	
1329743	1329743	1240228	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904465	904465	822010	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124241	1124241	1037284	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1419265	1419265	1329306	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1082374	1082374	997592	c.93A>G	p.I31M	Substitution - Missense	3:178916706-178916706
CGA-OL-A5RX-0	2187698	2055976	c.1097C>G	p.P366R	Substitution - Missense	3:178922328-178922328
CGA-OL-A5RX-0	2187698	2055976	c.2816A>G	p.D939G	Substitution - Missense	3:178948044-178948044
1972207	1972207	1858456	c.?	p.E545K	Substitution - Missense	
1017902	1017902	935060	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1193547	1193547	1105443	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1738896	1738896	1644727	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
2067911	2067911	1947704	c.?	p.H1047R	Substitution - Missense	
BC96	1281062	1192353	c.?	p.H1047R	Substitution - Missense	
1124150	1124150	1037193	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
E40050	894102	811870	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-A2-A0D1-0	1899615	1788299	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
E39860	894071	811839	c.3137C>T	p.A1046V	Substitution - Missense	3:178952082-178952082
1835029	1835029	1730061	c.?	p.H1047R	Substitution - Missense	
1135794	1135794	1048358	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676270	1676270	1589042	c.?	p.E542K	Substitution - Missense	
1124598	1124598	1037641	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A4RY-0	2187878	2056156	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1321129	1321129	1232016	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1427928	1427928	1337446	c.?	p.H1047R	Substitution - Missense	
1972154	1972154	1858403	c.?	p.E542K	Substitution - Missense	
1017832	1017832	934990	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
T47D	1308999	1219944	c.?	p.H1047R	Substitution - Missense	
1972319	1972319	1858568	c.?	p.H1047L	Substitution - Missense	
1738910	1738910	1644741	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
SA215	1659985	1574313	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972302	1972302	1858551	c.?	p.E545K	Substitution - Missense	
1135903	1135903	1048467	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703832	1703832	1611941	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124410	1124410	1037453	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A092-0	1899714	1788398	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124176	1124176	1037219	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
1972482	1972482	1858731	c.?	p.H1047R	Substitution - Missense	
1675734	1675734	1588613	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A2-A1G0-0	1899641	1788325	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1670205	1670205	1583491	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135840	1135840	1048404	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

CGA-AN-A0AJ-0	1899748	1788432	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1692036	1692036	1600301	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972300	1972300	1858549	c.?	p.E545K	Substitution - Missense	
1301966	1301966	1213017	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
T-47D	904395	821940	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972498	1972498	1858747	c.?	p.H1047R	Substitution - Missense	
1972428	1972428	1858677	c.?	p.H1047R	Substitution - Missense	
1443897	1443897	1368142	c.?	p.H1047R	Substitution - Missense	
1443735	1443735	1367980	c.?	p.H1047R	Substitution - Missense	
1443897	1443897	1368142	c.?	p.E542K	Substitution - Missense	
1698832	1698832	1606950	c.?	p.E542K	Substitution - Missense	
1321139	1321139	1232026	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MCF7	1308991	1219936	c.?	p.E545K	Substitution - Missense	
CGA-BH-A42V-0	2187790	2056068	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-A8-A08O-0	1899705	1788389	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E9-A1RC-0	1900206	1788890	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0SY-0	1899630	1788314	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972389	1972389	1858638	c.?	p.H1047R	Substitution - Missense	
1297120	1297120	1208174	c.?	p.N345K	Substitution - Missense	
1329588	1329588	1240073	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698527	1698527	1606645	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BB33T	1430376	1339790	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1297152	1297152	1208206	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135896	1135896	1048460	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703729	1703729	1611838	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443621	1443621	1367866	c.?	p.H1047R	Substitution - Missense	
1135837	1135837	1048401	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972539	1972539	1858788	c.?	p.H1047R	Substitution - Missense	
1972246	1972246	1858495	c.?	p.E545K	Substitution - Missense	
1691695	1691695	1599961	c.?	p.E545K	Substitution - Missense	
1329893	1329893	1240378	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443614	1443614	1367859	c.?	p.H1047R	Substitution - Missense	
6	1971255	1857504	c.3132T>A	p.N1044K	Substitution - Missense	3:178952077-178952077
1709224	1709224	1617130	c.?	p.H1047R	Substitution - Missense	
1244893	1244893	1156599	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124422	1124422	1037465	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124415	1124415	1037458	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
103848	1520521	1442896	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1698511	1698511	1606629	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
2067943	2067943	1947736	c.?	p.N345K	Substitution - Missense	
1312249	1312249	1223158	c.?	p.E545K	Substitution - Missense	
1675746	1675746	1588619	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017903	1017903	935061	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

	1244840	1244840	1156546	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1244850	1244850	1156556	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
	1297121	1297121	1208175	c.?	p.E545K	Substitution - Missense	
	1972288	1972288	1858537	c.?	p.E545K	Substitution - Missense	
	1124260	1124260	1037303	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244947	1244947	1156653	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1703847	1703847	1611956	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1135804	1135804	1048368	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244862	1244862	1156568	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1691738	1691738	1600004	c.?	p.H1047R	Substitution - Missense	
	1329608	1329608	1240093	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A24K-0	1899833	1899833	1788517	c.1049A>G	p.D350G	Substitution - Missense	3:178921567-178921567
	1018403	1018403	935561	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1698524	1698524	1606642	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
	1124149	1124149	1037192	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1017192	1017192	934362	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1134442	1134442	1047102	c.3145G>C	p.G1049R	Substitution - Missense	3:178952090-178952090
	1709215	1709215	1617121	c.?	p.E545K	Substitution - Missense	
	SA214	1659984	1574312	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	BT474	1308996	1219941	c.?	p.K111N	Substitution - Missense	
	1691707	1691707	1599973	c.?	p.H1047R	Substitution - Missense	
	1425133	1425133	1335161	c.?	p.H1047R	Substitution - Missense	
	1698860	1698860	1606978	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	BB18T	1430368	1339782	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1972270	1972270	1858519	c.?	p.E545K	Substitution - Missense	
	1312222	1312222	1223131	c.?	p.H1047L	Substitution - Missense	
	1703751	1703751	1611860	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1244806	1244806	1156512	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1443611	1443611	1367856	c.?	p.H1047R	Substitution - Missense	
MDA-MB-453	1046931	1046931	963162	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1018914	1018914	935937	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1739281	1739281	1645002	c.?	p.H1047R	Substitution - Missense	
	104066	1520581	1442956	c.3129G>C	p.M1043I	Substitution - Missense	3:178952074-178952074
	1301944	1301944	1212995	c.1637A>C	p.Q546P	Substitution - Missense	3:178936095-178936095
	1122685	1122685	1035729	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1972384	1972384	1858633	c.?	p.H1047R	Substitution - Missense	
	107970	1520605	1442980	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-D8-A1JG-0	1900053	1900053	1788737	c.1364_1365insG	p.L456fs*13	Insertion - Frameshift	3:178928086-178928087
	1244883	1244883	1156589	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1134443	1134443	1047103	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1670305	1670305	1583591	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	E40055	894107	811875	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1972231	1972231	1858480	c.?	p.E545K	Substitution - Missense	

1329750	1329750	1240235	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972475	1972475	1858724	c.?	p.H1047R	Substitution - Missense	
E40061	894113	811881	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1864119	1864119	1754972	c.?	p.Q546R	Substitution - Missense	
1017848	1017848	935006	c.1625A>T	p.E542V	Substitution - Missense	3:178936083-178936083
1443905	1443905	1368150	c.?	p.H1047R	Substitution - Missense	
1972374	1972374	1858623	c.?	p.H1047R	Substitution - Missense	
904455	904455	822000	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1692035	1692035	1600300	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124391	1124391	1037434	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-A8-A06R-0	1899671	1788355	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1018912	1018912	935935	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-AN-A03Y-0	1899743	1788427	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0YH-0	1899635	1788319	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
CGA-A8-A06P-0	1899670	1788354	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1709221	1709221	1617127	c.?	p.H1047R	Substitution - Missense	
1698891	1698891	1607009	c.?	p.H1047L	Substitution - Missense	
1972557	1972557	1858806	c.?	p.H1047R	Substitution - Missense	
1972406	1972406	1858655	c.?	p.H1047R	Substitution - Missense	
1691741	1691741	1600007	c.?	p.H1047R	Substitution - Missense	
1244784	1244784	1156490	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1720332	1720332	1627612	c.?	p.H1047R	Substitution - Missense	
1972534	1972534	1858783	c.?	p.H1047R	Substitution - Missense	
1703781	1703781	1611890	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1703736	1703736	1611845	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
E40051	894103	811871	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1135856	1135856	1048420	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
BC133	1281099	1192390	c.?	p.H1047R	Substitution - Missense	
1698517	1698517	1606635	c.1634A>C	p.E545A	Substitution - Missense	3:178936092-178936092
1135863	1135863	1048427	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1972462	1972462	1858711	c.?	p.H1047R	Substitution - Missense	
1124611	1124611	1037654	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
Sample_II	2053323	1933575	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321133	1321133	1232020	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1709233	1709233	1617139	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738891	1738891	1644722	c.328G>A	p.E110K	Substitution - Missense	3:178916941-178916941
1135879	1135879	1048443	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124613	1124613	1037656	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1212750	1212750	1124617	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882689	1882689	1772809	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703743	1703743	1611852	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
1193509	1193509	1105405	c.?	p.H1047R	Substitution - Missense	
1329731	1329731	1240216	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1670301	1670301	1583587	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193505	1193505	1105401	c.?	p.H1047R	Substitution - Missense	
1329901	1329901	1240386	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1425163	1425163	1335191	c.?	p.H1047R	Substitution - Missense	
1419239	1419239	1329280	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-A2-A1FZ-0	1899640	1788324	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
MDA-MB-361	904379	821924	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124243	1124243	1037286	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193516	1193516	1105412	c.?	p.H1047R	Substitution - Missense	
1301934	1301934	1212985	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1135855	1135855	1048419	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-A2-A4S2-0	2187875	2056153	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1212749	1212749	1124616	c.1634A>G	p.E545G	Substitution - Missense	3:178936092-178936092
TCGA-AC-A2B8-0	2187847	2056125	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
SUM185PE	1136381	1048945	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
TCGA-E9-A1NG-0	1900193	1788877	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
101	1860503	1751444	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1720345	1720345	1627625	c.?	p.E545K	Substitution - Missense	
1135835	1135835	1048399	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
904406	904406	821951	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
1297127	1297127	1208181	c.?	p.H1047R	Substitution - Missense	
2131992	2131992	2006055	c.?	p.H1047R	Substitution - Missense	
1972437	1972437	1858686	c.?	p.H1047R	Substitution - Missense	
1691743	1691743	1600009	c.?	p.H1047R	Substitution - Missense	
1530129	1530129	1452501	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703868	1703868	1611977	c.3197C>T	p.A1066V	Substitution - Missense	3:178952142-178952142
1703868	1703868	1611977	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1329563	1329563	1240048	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1301942	1301942	1212993	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2131990	2131990	2006053	c.?	p.E545K	Substitution - Missense	
1017839	1017839	934997	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1443714	1443714	1367959	c.?	p.H1047R	Substitution - Missense	
1972434	1972434	1858683	c.?	p.H1047R	Substitution - Missense	
1972453	1972453	1858702	c.?	p.H1047R	Substitution - Missense	
1443711	1443711	1367956	c.?	p.H1047R	Substitution - Missense	
1972526	1972526	1858775	c.?	p.H1047R	Substitution - Missense	
904432	904432	821977	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1864112	1864112	1754965	c.?	p.E545K	Substitution - Missense	
1703791	1703791	1611900	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1124097	1124097	1037140	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1018923	1018923	935946	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124597	1124597	1037640	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703771	1703771	1611880	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

1972491	1972491	1858740	c.?	p.H1047R	Substitution - Missense	
E40067	894119	811887	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972394	1972394	1858643	c.?	p.H1047R	Substitution - Missense	
1312216	1312216	1223125	c.?	p.H1047R	Substitution - Missense	
1329738	1329738	1240223	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329836	1329836	1240321	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1301921	1301921	1212972	c.1624G>C	p.E542Q	Substitution - Missense	3:178936082-178936082
1301921	1301921	1212972	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1882712	1882712	1772832	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301953	1301953	1213004	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703810	1703810	1611919	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321153	1321153	1232040	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017895	1017895	935053	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
HF-11221	1507801	1430667	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703848	1703848	1611957	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244808	1244808	1156514	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329573	1329573	1240058	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972454	1972454	1858703	c.?	p.H1047R	Substitution - Missense	
1698878	1698878	1606996	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329824	1329824	1240309	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124232	1124232	1037275	c.1035T>A	p.N345K	Substitution - Missense	3:178921553-178921553
2107708	2107708	1985569	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972272	1972272	1858521	c.?	p.E545K	Substitution - Missense	
CGA-D8-A1JK-0	1900057	1788741	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329834	1329834	1240319	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-C8-A3M7-0	2187788	2056066	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0T4-0	1779309	1683308	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E9-A1RE-0	1900208	1788892	c.311C>T	p.P104L	Substitution - Missense	3:178916924-178916924
1698857	1698857	1606975	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329583	1329583	1240068	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1675749	1675749	1588621	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698869	1698869	1606987	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1329565	1329565	1240050	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703745	1703745	1611854	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1670307	1670307	1583593	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972514	1972514	1858763	c.?	p.H1047R	Substitution - Missense	
1972317	1972317	1858566	c.?	p.H1047L	Substitution - Missense	
1329755	1329755	1240240	c.3204_3205insA	p.N1068fs*4	Insertion - Frameshift	3:178952149-178952150
1135798	1135798	1048362	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2067910	2067910	1947703	c.?	p.H1047L	Substitution - Missense	
1135820	1135820	1048384	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1691705	1691705	1599971	c.?	p.H1047R	Substitution - Missense	
1676265	1676265	1589037	c.?	p.E542K	Substitution - Missense	

1738926	1738926	1644757	c.3073A>K	p.T1025?	Substitution - Missense	3:178952018-178952018
1329832	1329832	1240317	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972202	1972202	1858451	c.?	p.E545G	Substitution - Missense	
1312218	1312218	1223127	c.?	p.H1047R	Substitution - Missense	
1124607	1124607	1037650	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1321128	1321128	1232015	c.1636C>A	p.Q546K	Substitution - Missense	3:178936094-178936094
1193531	1193531	1105427	c.?	p.H1047R	Substitution - Missense	
E39834	894045	811813	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124249	1124249	1037292	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
1244945	1244945	1156651	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
2067949	2067949	1947742	c.?	p.H1047R	Substitution - Missense	
1691740	1691740	1600006	c.?	p.H1047R	Substitution - Missense	
1193515	1193515	1105411	c.?	p.H1047R	Substitution - Missense	
TCGA-D8-A1JJ-0	1900056	1788740	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670204	1670204	1583490	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972278	1972278	1858527	c.?	p.E545K	Substitution - Missense	
1193540	1193540	1105436	c.?	p.H1047R	Substitution - Missense	
1321113	1321113	1232000	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1124388	1124388	1037431	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972346	1972346	1858595	c.?	p.H1047L	Substitution - Missense	
1135861	1135861	1048425	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972237	1972237	1858486	c.?	p.E545K	Substitution - Missense	
1134435	1134435	1047095	c.?	p.H1047T	Substitution - Missense	
1972554	1972554	1858803	c.?	p.H1047R	Substitution - Missense	
TCGA-C8-A3M8-0	2187787	2056065	c.3129G>C	p.M1043I	Substitution - Missense	3:178952074-178952074
1419249	1419249	1329290	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
3	1860498	1751439	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
BT20	1017159	934329	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
1972179	1972179	1858428	c.?	p.E542K	Substitution - Missense	
1972137	1972137	1858386	c.?	p.E542K	Substitution - Missense	
BT20	1017159	934329	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301947	1301947	1212998	c.?	p.?	Substitution - Missense	
1703822	1703822	1611931	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738908	1738908	1644739	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670209	1670209	1583495	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1135889	1135889	1048453	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-AN-A0XO-C	1899765	1788449	c.1357G>A	p.E453K	Substitution - Missense	3:178928079-178928079
1972218	1972218	1858467	c.?	p.E545K	Substitution - Missense	
CGA-AN-A0XO-C	1899765	1788449	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1676220	1676220	1588992	c.?	p.H1047R	Substitution - Missense	
904424	904424	821969	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972247	1972247	1858496	c.?	p.E545K	Substitution - Missense	
1135910	1135910	1048474	c.?	p.K111N	Substitution - Missense	

	1443900	1443900	1368145	c.?	p.H1047R	Substitution - Missense	
	1244814	1244814	1156520	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1972479	1972479	1858728	c.?	p.H1047R	Substitution - Missense	
	1135813	1135813	1048377	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A12L-0	1899997	1899997	1788681	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1703767	1703767	1611876	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1244864	1244864	1156570	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1135898	1135898	1048462	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-EW-A10V-C	1900240	1900240	1788924	c.241G>A	p.E81K	Substitution - Missense	3:178916854-178916854
	904450	904450	821995	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1670190	1670190	1583476	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1212755	1212755	1124622	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1670328	1670328	1583614	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
	1972361	1972361	1858610	c.?	p.H1047R	Substitution - Missense	
CGA-E2-A11O-0	1900169	1900169	1788853	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
	1972509	1972509	1858758	c.?	p.H1047R	Substitution - Missense	
	1329723	1329723	1240208	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1703784	1703784	1611893	c.3203_3204insA	p.N1068fs*5	Insertion - Frameshift	3:178952148-178952149
	1312214	1312214	1223123	c.?	p.H1047R	Substitution - Missense	
	1972508	1972508	1858757	c.?	p.H1047R	Substitution - Missense	
	1301955	1301955	1213006	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244826	1244826	1156532	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1329742	1329742	1240227	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1670289	1670289	1583575	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1703801	1703801	1611910	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244925	1244925	1156631	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1703861	1703861	1611970	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1193561	1193561	1105457	c.?	p.E545K	Substitution - Missense	
	1443705	1443705	1367950	c.?	p.H1047R	Substitution - Missense	
	1972358	1972358	1858607	c.?	p.H1047R	Substitution - Missense	
	1703853	1703853	1611962	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1301920	1301920	1212971	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
	1301920	1301920	1212971	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1244935	1244935	1156641	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
	1301932	1301932	1212983	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
SUM159PT	1046944	1046944	963175	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-AN-A03X-0	1899742	1899742	1788426	c.3140A>T	p.H1047L	Substitution - Missense	3:178952085-178952085
CGA-AN-A049-0	1899744	1899744	1788428	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A1AW-C	1899829	1899829	1788513	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-AR-A1AL-0	1899819	1899819	1788503	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
CGA-BH-A18J-0	1899951	1899951	1788635	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
	1443703	1443703	1367948	c.?	p.H1047L	Substitution - Missense	
	1018383	1018383	935541	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085

1972211	1972211	1858460	c.?	p.E545K	Substitution - Missense	
MDA-MB-361	1046933	963164	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
MDA-MB-361	1046933	963164	c.1700A>G	p.K567R	Substitution - Missense	3:178937019-178937019
1124605	1124605	1037648	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1676239	1676239	1589011	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1692228	1692228	1600493	c.?	p.H1047R	Substitution - Missense	
1244817	1244817	1156523	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1124392	1124392	1037435	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1703748	1703748	1611857	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1329584	1329584	1240069	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244949	1244949	1156655	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
14	1971263	1857512	c.1259_1265GTCCATT>A	p.C420_L422>*	Complex - deletion inframe	3:178927981-178927987
2053358	2053358	1933604	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2053358	2053358	1933604	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670214	1670214	1583500	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698876	1698876	1606994	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443961	1443961	1368206	c.?	p.H1047R	Substitution - Missense	
2042637	2042637	1923755	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703849	1703849	1611958	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698872	1698872	1606990	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698840	1698840	1606958	c.?	p.E542K	Substitution - Missense	
1193499	1193499	1105395	c.?	p.H1047R	Substitution - Missense	
1329577	1329577	1240062	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1698842	1698842	1606960	c.?	p.E542K	Substitution - Missense	
1972523	1972523	1858772	c.?	p.H1047R	Substitution - Missense	
1135897	1135897	1048461	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1018394	1018394	935552	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1443642	1443642	1367887	c.?	p.H1047R	Substitution - Missense	
1244779	1244779	1156485	c.1258T>C	p.C420R	Substitution - Missense	3:178927980-178927980
1244801	1244801	1156507	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972420	1972420	1858669	c.?	p.H1047R	Substitution - Missense	
1657044	1657044	1571699	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1738906	1738906	1644737	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698847	1698847	1606965	c.?	p.E545K	Substitution - Missense	
1720333	1720333	1627613	c.?	p.H1047R	Substitution - Missense	
1703782	1703782	1611891	c.1637A>G	p.Q546R	Substitution - Missense	3:178936095-178936095
1244787	1244787	1156493	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
TCGA-E9-A249-0	1900228	1788912	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
2131985	2131985	2006048	c.?	p.E545K	Substitution - Missense	
1124234	1124234	1037277	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
1972308	1972308	1858557	c.?	p.E545Q	Substitution - Missense	
1972451	1972451	1858700	c.?	p.H1047R	Substitution - Missense	
1703750	1703750	1611859	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

1972263	1972263	1858512	c.?	p.E545K	Substitution - Missense	
1443700	1443700	1367945	c.?	p.H1047L	Substitution - Missense	
1738912	1738912	1644743	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1017174	1017174	934344	c.1616C>G	p.P539R	Substitution - Missense	3:178936074-178936074
1329747	1329747	1240232	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1244809	1244809	1156515	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1972369	1972369	1858618	c.?	p.H1047R	Substitution - Missense	
PD4085a	1304513	1215561	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301967	1301967	1213018	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1692047	1692047	1600312	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1703869	1703869	1611978	c.3127A>G	p.M1043V	Substitution - Missense	3:178952072-178952072
1703869	1703869	1611978	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
BC40	1281006	1192297	c.?	p.H1047R	Substitution - Missense	
1698886	1698886	1607004	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1703807	1703807	1611916	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1665030	1665030	1578480	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1972405	1972405	1858654	c.?	p.H1047R	Substitution - Missense	
18	1971267	1857516	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-BH-A1EY-0	1899971	1788655	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A2-A0CR-0	2187896	2056174	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
CGA-EW-A1PC-C	2187751	2056029	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1665029	1665029	1578479	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1698850	1698850	1606968	c.?	p.E545K	Substitution - Missense	
CGA-E9-A1RD-0	1900207	1788891	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
E40048	894100	811868	c.1352_1366del15	p.G451_L456>V	Complex - deletion inframe	3:178928074-178928088
2107711	2107711	1985572	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E9-A1R3-0	1900199	1788883	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1301954	1301954	1213005	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1124608	1124608	1037651	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1670325	1670325	1583611	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1278880	1278880	1190176	c.?	p.H1047R	Substitution - Missense	
1972535	1972535	1858784	c.?	p.H1047R	Substitution - Missense	
1419227	1419227	1329268	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
1692229	1692229	1600494	c.?	p.M1043I	Substitution - Missense	
1692225	1692225	1600490	c.?	p.H1047R	Substitution - Missense	
T47D	1998484	1883556	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-C8-A26X-0	1900030	1788714	c.309_317delACCAGTAGG	p.E103_G106>D	Complex - deletion inframe	3:178916922-178916930
2107724	2107724	1985585	c.1624G>A	p.E542K	Substitution - Missense	3:178936082-178936082
2067951	2067951	1947744	c.?	p.H1047R	Substitution - Missense	
CGA-EW-A1J1-0	1900235	1788919	c.3130A>T	p.N1044Y	Substitution - Missense	3:178952075-178952075
1329740	1329740	1240225	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-E9-A227-0	1900214	1788898	c.3140A>G	p.H1047R	Substitution - Missense	3:178952085-178952085
CGA-A8-A08P-0	1899706	1788390	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091

1301936	1301936	1212987	c.1633G>A	p.E545K	Substitution - Missense	3:178936091-178936091
1193557	1193557	1105453	c.?	p.E545K	Substitution - Missense	

Supplementary Table S2. Predictions by computational algorithms on the consequences of *PIK3CA* missense mutations

Variant	Condel	PolyPhen	SIFT	MutationAssessor	CanDrA +.CTS
I31M	neutral(0.287)	benign(0.011)	tolerated(0.1)	neutral(0.46)	Driver(0.9635)
K111N	deleterious(0.835)	probably_damaging(0.947)	deleterious(0)	medium(2.42)	Driver(0.80414)
N345I	deleterious(0.831)	probably_damaging(0.981)	deleterious(0.01)	medium(2.175)	Driver(0.66667)
N345K	neutral(0.430)	probably_damaging(0.973)	tolerated(0.41)	medium(2.175)	Driver(0.86861)
C420R	deleterious(0.841)	probably_damaging(0.953)	deleterious(0)	medium(1.905)	Driver(0.77494)
E453K	deleterious(0.558)	possibly_damaging(0.811)	tolerated(0.13)	medium(2.08)	Driver(0.92092)
P539R	deleterious(0.734)	possibly_damaging(0.892)	deleterious(0.02)	medium(2.49)	Driver(0.87348)
E542K	deleterious(0.736)	probably_damaging(0.922)	deleterious(0.03)	low(1.27)	Driver(0.81509)
E542V	deleterious(0.823)	probably_damaging(0.975)	deleterious(0.01)	low(1.24)	Driver(0.71046)
E545K	deleterious(0.782)	possibly_damaging(0.868)	deleterious(0)	low(1.62)	Driver(0.69465)
E545Q	deleterious(0.577)	possibly_damaging(0.706)	tolerated(0.06)	low(1.75)	Driver(0.68491)
E545A	deleterious(0.820)	probably_damaging(0.927)	deleterious(0)	low(1.38)	Driver(0.67275)
E545G	deleterious(0.855)	probably_damaging(0.968)	deleterious(0)	medium(2.005)	Driver(0.70925)
Q546K	deleterious(0.611)	possibly_damaging(0.903)	tolerated(0.13)	medium(1.975)	Driver(0.75547)
Q546E	neutral(0.178)	possibly_damaging(0.504)	tolerated(0.51)	neutral(-0.1)	Driver(0.80292)
Q546P	deleterious(0.734)	probably_damaging(0.986)	tolerated(0.08)	medium(1.975)	Driver(0.72019)
Q546R	deleterious(0.732)	probably_damaging(0.968)	tolerated(0.06)	medium(1.975)	Driver(0.77616)
H701P	neutral(0.216)	possibly_damaging(0.529)	tolerated(0.24)	neutral(0.49)	Driver(0.86131)
A1020V	deleterious(0.572)	possibly_damaging(0.6)	deleterious(0.03)	low(1.16)	Driver(0.50973)
M1043V	neutral(0.407)	benign(0.027)	deleterious(0.01)	neutral(-0.485)	Driver(0.26764)
M1043I	neutral(0.408)	benign(0.039)	deleterious(0.01)	neutral(-1.43)	Driver(0.27859)
N1044K	deleterious(0.583)	possibly_damaging(0.582)	deleterious(0.02)	neutral(0.515)	Driver(0.46715)
H1047Y	neutral(0.044)	benign(0.002)	tolerated(0.21)	neutral(-1.74)	Driver(0.70438)
H1047R	neutral(0.365)	benign(0.205)	deleterious(0.05)	neutral(0)	Driver(0.83942)
H1047L	neutral(0.007)	benign(0.101)	tolerated(1)	neutral(-1.325)	Driver(0.63017)
G1049R	neutral(0.026)	benign(0.172)	tolerated(0.48)	low(1.525)	Driver(0.73479)

Variant	CanDrA +.GEN	CHASM driver score	VEST functional score	MUTATION TASTER
I31M	No-call(N/A)	0.242	0.711	disease_causing(0.999956008)
K111N	Driver(0.69)	0.18	0.372	disease_causing(0.999999322)
N345I	Driver(0.64822)	0.12	0.81	disease_causing(0.9999999994686)
N345K	Driver(0.81458)	0.148	0.323	disease_causing(0.999999974518022)

C420R	Driver(0.77208)	0.132	0.982	disease_causing(0.99999999999976)
E453K	Driver(0.79883)	0.14	0.877	disease_causing(0.999999999933198)
P539R	Driver(0.80213)	0.098	0.956	disease_causing(0.99999999994159)
E542K	Driver(0.78857)	0.082	0.921	disease_causing(0.99999999976481)
E542V	Driver(0.72298)	0.06	0.943	disease_causing(0.99999999950012)
E545K	Driver(0.74606)	0.094	0.961	disease_causing(0.99999999977394)
E545Q	Driver(0.74056)	0.208	0.781	disease_causing(0.99999999907259)
E545A	Driver(0.76145)	0.066	0.964	disease_causing(0.99999999895809)
E545G	Driver(0.70905)	0.072	0.94	disease_causing(0.99999999917041)
Q546K	Driver(0.79846)	0.14	0.812	disease_causing(0.9999999998774)
Q546E	Driver(0.80872)	0.164	0.676	disease_causing(0.99999999974685)
Q546P	Driver(0.73433)	0.112	0.936	disease_causing(0.99999999993104)
Q546R	Driver(0.79113)	0.058	0.901	disease_causing(0.99999999875349)
H701P	No-call(N/A)	0.178	0.911	disease_causing(0.9999999945507)
A1020V	Driver(0.4727)	0.046	0.693	disease_causing(0.999999994967599)
M1043V	Driver(0.58007)	0.044	0.913	disease_causing(0.99999999968946)
M1043I	Driver(0.57017)	0.066	0.957	disease_causing(0.999999999782073)
N1044K	Driver(0.50678)	0.032	0.362	disease_causing(0.999999962278491)
H1047Y	Driver(0.75082)	0.042	0.941	disease_causing(0.99999998971543)
H1047R	No-call(N/A)	0.024	0.882	disease_causing(0.99999996652391)
H1047L	Driver(0.70612)	0.036	0.916	disease_causing(0.99999999325611)
G1049R	Driver(0.72151)	0.052	0.921	disease_causing(0.99999999951561)

Supplementary Table S3. Mutagenic primer and barcode sequences of *PIK3CA* constructs and HiTMMoB reaction efficiencies

Amino Acid Change	Nucleotide Change	Mutagenic Primer Seq	Clones Picked	Mut Clones	% Mut	BC ID	BC Sequence
E453K	1357G>A	AGTACCTCATGGATTA A AAGATTTGCTGAACCCTATTGGTGTTA	2	1	50.0	1	tattatgagaagttgaatagtag
E542V	1625A>T	CGAGATCCTCTCTCTG T AATCACTGAGCAGGAGAAAGATTTTC	2	2	100.0	2	atgaaagttagagttatgataag
E545Q	1633G>C	TCTCTCTGAAATCACT C AGCAGGAGAAAGATTTTCTATGGAGTC	2	1	50.0	3	aatagataagattgattgtgttg
H701P	2102A>C	GGATGTATTTGAAG C CCTGAATAGGCAAGTCGAGGCAATGG	2	1	50.0	4	tgtaaagtgtatgtagtaattgag
I31M	93A>G	ACCAAATGGAATGAT G GTGACTTTAGAATGCCTCCGTGAGGC	2	1	50.0	5	atagattaaagtgagagagttat
M1043I	3129G>C	ATTTTCATGAAACAAAT C AATGATGCACATCATGGTGGCTGGAC	2	1	50.0	6	gaatgtttgaaatgtagatag
N1044K	3132T>A	TCATGAAACAAATGAA A GATGCACATCATGGTGGCTGGACAAC	2	2	100.0	7	aaattgtgaagattgtttgtga
N345I	1034A>T	TGTGCAACCTACGTG A TTGTAATATTCGAGACATTGATAAGAT	2	1	50.0	8	tgtaagtgaatagtgagttatt
A1020V	3059C>T	TCTTTTGATGACATTG T ATACATTCGAAAGACCCTAGCCTTAGA	2	2	100.0	10	agtgagattatgagtattgatta
Q546E	1636C>G	TCTGAAATCACTGAG G GAGGAGAAAGATTTTCTATGGAGTCAC	2	1	50.0	11	gtgtaaagttgagatgatatt
M1043V	3127A>G	GTATTTTCATGAAACAA G TGAATGATGCACATCATGGTGGCTGG	1	1	100.0	16	gtagtagtaattggaatgtttgaa
Q546P	1637A>C	CTGAAATCACTGAG C CGGAGAAAGATTTTCTATGGAGTCACAC	1	1	100.0	17	ttgtgaatgattaatgaatagaag
T1025T	3075C>T	CATACATTCGAAAG A CTCTAGCCTTAGATAAAACTGAGCAAGAC	3	1	33.3	19	gtgtgttattgtttgaaagat
Q546K	1636C>A	TCTGAAATCACTGAG A AGGAGAAAGATTTTCTATGGAGTCAC	2	2	100.0	20	aaattagttgaaagtagagaaaag
H1047Y	3139C>T	ACAAATGAATGATGC A TATCATGGTGGCTGGACAACAAAAATG	1	1	100.0	23	tagttagatatttgatagttatg
K111N	333G>C	GCAACCGTGAAGAAA C ATCCTCAATCGAGAAATTGGTTTTGC	2	2	100.0	24	aataatgttgaaatagatgtga
Q546R	1637A>G	CTGAAATCACTGAG C GGGAGAAAGATTTTCTATGGAGTCACAC	2	2	100.0	27	aagatgatagttaaagtgaagtta
G1049R	3145G>C	AAATGATGCACAT C ATCGTGGCTGGACAACAAAAATGGATTGG	5	2	40.0	28	gatagattagaatgaattaagtg
P539R	1616C>G	ATTTCTACACGAG A TCTCTCTGAAATCACTGAGCAGGAGA	2	1	50.0	29	tttaagtgagttatagaagtagta
E545G	1634A>G	TCTCTGAAATCACTG G CGAGGAGAAAGATTTTCTATGGAGTC	9	3	33.3	52	gtaagattagaagttaatgaagaa
C420R	1258T>C	TGCTAAAGAGGAAC A CGTCCATTGGCATGGGGAAATATAAAC	2	2	100.0	32	aagtgtttaagtgaagaaatgaa
E545A	1634A>C	TCTCTGAAATCACTG C GCAGGAGAAAGATTTTCTATGGAGTC	2	1	50.0	34	tgatatagtagtaagaaataagt
N345K	1035T>A	GTGCAACCTACGTG A AGTAAATATTCGAGACATTGATAAGATC	9	1	11.1	35	aataagagaattgatatgaagatg
H1047L	3140A>T	AAATGAATGATGC A CTTCATGGTGGCTGGACAACAAAAATGG	2	1	50.0	37	tgatatgttaatgagatgttgta
E542K	1624G>A	ACGAGATCCTCTCT T AAATCACTGAGCAGGAGAAAGATTTTC	5	1	20.0	38	agtaagtgtagatagattgaaat
E545K	1633G>A	TCTCTCTGAAATCACT A AGCAGGAGAAAGATTTTCTATGGAGTC	2	2	100.0	39	ttgtgatagtagttagatattgt
H1047R	3140A>G	AAATGAATGATGC A CTTCATGGTGGCTGGACAACAAAAATGG	2	1	50.0	40	aatgtagagattgtagtgaatatt
A1020A	3060A>T	CTTTTGATGACATTG T TACATTCGAAAGACCCTAGCCTTAGAT	2	1	50.0	41	atgtaattgtgaaatgtagtg
Q546Q	1638G>A	TGAAATCACTGAG C AGAGAAAGATTTTCTATGGAGTCACAG	5	1	20.0	43	aaataagaatagagagagaaagtt
N345N	1035T>C	GTGCAACCTACGTG A CGTAAATATTCGAGACATTGATAAGATC	5	1	20.0	44	aatgtaaagtaaagaaagtgatga
G1049G	3147T>A	ATGATGCACAT C ATGGAGGCTGGACAACAAAAATGGATTGGAT	2	2	100.0	45	gtagtagtagatgaatattgtgta
P539P	1617T>A	TTTCTACACGAG A TCCACTCTCTGAAATCACTGAGCAGGAGAA	2	1	50.0	46	gtgattgaatagtagattgttaa
C420C	1260T>C	CTAAAGAGGAAC A CTGCCATTGGCATGGGGAAATATAAACTT	2	2	100.0	47	tattgtgaaatgtgttaaagaga
E542E	1626A>G	AGATCCTCTCTCT G ATCACTGAGCAGGAGAAAGATTTTCT	2	1	50.0	48	tatgaatgttattgtgttgatt
E545E	1635G>A	TCTCTGAAATCACT G AACAGGAGAAAGATTTTCTATGGAGTCAC	5	1	20.0	49	tgtaagtttaaagtaagaaatgtg
H1047H	3141T>C	AAATGAATGATGC A CCATGGTGGCTGGACAACAAAAATGGA	10	5	50.0	50	agagatattagaatgtaagaatag
WT	-					51	gataagaaagtgaaatgtaaatgtg
				Average	62.4		

Supplementary Table S4. Representative phenotyping for *PIK3CA* variants.

	COSMIC Frequency	Increased Lipid Kinase Activity	PI3K Pathway Activation	Growth Factor-Independent Proliferation	In Vitro Transformation	In Vivo Tumor Formation
N345I	0.000646831	N/A	N/A	N/A	N/A	N/A
I31M	0.000646831	N/A	N/A	N/A	N/A	N/A
E542V	0.000646831	N/A	N/A	N/A	N/A	N/A
H701P	0.000970246	Yes(1)	No-CEF(1)	N/A	No-CEF(1)	N/A
A1020V	0.000970246	N/A	N/A	N/A	N/A	N/A
T1025T	0.001293661	N/A	N/A	N/A	N/A	N/A
Q546E	0.001293661	N/A	N/A	N/A	N/A	N/A
N1044K	0.001617076	N/A	N/A	N/A	N/A	N/A
M1043I	0.001940492	Yes(2, 3)	No-CEF(1)	N/A	Yes-CEF(1)	N/A
M1043V	0.001940492	N/A	No-CEF(1)	N/A	Yes-CEF(1)	N/A
Q546P	0.002587322	N/A	Yes-CEF(1)	N/A	Yes-CEF(1)	N/A
E545Q	0.002587322	N/A	N/A	N/A	N/A	N/A
P539R	0.003234153	Yes(1)	Yes-CEF(1)	N/A	Yes-CEF(1)	N/A
K111N	0.003557568	N/A	N/A	N/A	Yes-CEF(1)	N/A
H1047Y	0.003557568	N/A	N/A	N/A	Yes-CEF(1)	N/A
E453K	0.003557568	Yes(4)	N/A	N/A	N/A	N/A
Q546R	0.005174644	N/A	N/A	N/A	N/A	N/A
G1049R	0.005174644	Yes(3)	N/A	N/A	N/A	N/A
Q546K	0.00549806	Yes(1)	Yes-CEF(1)	N/A	Yes-CEF(1)	N/A
E545G	0.005821475	N/A	Yes-CEF(1)	N/A	Yes-CEF(1)	N/A
C420R	0.007115136	Yes(2, 3, 4)	Yes-CEF(1) MEF(2)	N/A	Yes-CEF(1) MEF(2)	N/A
N345K	0.015523933	Yes(1,4)	Yes-CEF(1)	N/A	Yes-CEF(1)	N/A
E545A	0.017141009	Yes(1)	Yes-CEF(1)	N/A	Yes-CEF(1)	N/A
H1047L	0.053040103	Yes(3)	No-CEF(1)	N/A	Yes-CEF(1)	N/A
E542K	0.108020699	Yes(2, 5, 11)	Yes-CEF(1, 5)	N/A	Yes-CEF(1, 5)	Yes-CE(12)
E545K	0.184993532	Yes(2, 3, 4, 5, 6, 11)	Yes-CEF(1, 5) MEF(2) MCF10A(6, 7) HCCCL(9) HMEC(10) GEM (Mammary)	Yes-MCF10A(6, 7) HMEC(10) HCCCL(9)	Yes-CEF(1, 5) MCF10A(6) MEF(2) HMEC(10)	Yes-CE(12) GEM(Mammary gland 8)
H1047R	0.510996119	Yes(1, 2, 3, 4, 5, 6, 11)	Yes-CE(12) CEF(5) MCF10A(6, 7) MEF(2) GEM(Mammary gland 8)	Yes-MCF10A(6, 7) HMEC(10) HCCCL(9)	Yes-CEF(1, 5) MCF10A(6) MEF(2) HMEC(10)	Yes-CE(12) GEM(Mammary gland 8, Lung)

Abbreviations: CE, chicken embryo; CEF, chicken embryonic fibroblasts; MEF, mouse embryonic fibroblasts; HMEC, human mammary epithelial cells; HCCCL, human colorectal cancer cell line; GEM, genetically engineered mouse

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Supplementary Table S5. Barcode representation for *PIK3CA* variants in each sequenced tumor core

		GFP	WT	A1020A	P539P	Q546Q	C420C	N345N	E542E
		BC12	BC51	BC41	BC46	BC43	BC47	BC44	BC48
Input	Average % of representation	0.0198329	0.0315394	0.018088	0.0082366	0.0212483	0.01871	0.0208904	0.0522592
	Standard Deviation	0.0005353	0.0009695	0.0017575	3.404E-05	0.0022671	0.0018203	0.0008417	0.0009059
T1-1	Average % of representation	1.844E-05	0	0	1.976E-05	0	0	0.0006164	0
	Standard Deviation	2.607E-05	0	0	1.868E-06	0	0	6.688E-05	0
T1-2	Average % of representation	8.335E-06	0	8.335E-06	0	0	2.5E-05	0.0001944	0
	Standard Deviation	1.179E-05	0	1.179E-05	0	0	3.536E-05	5.519E-05	0
T1-3	Average % of representation	0	3.049E-05	1.017E-05	2.029E-05	2.029E-05	4.061E-05	0.0016251	7.119E-05
	Standard Deviation	0	1.442E-05	1.438E-05	2.87E-05	2.87E-05	2.866E-05	0.0001984	0.0001007
T2-1	Average % of representation	0	1.679E-05	2.518E-05	0	3.357E-05	0	0.0006735	1.679E-05
	Standard Deviation	0	2.374E-05	3.561E-05	0	4.748E-05	0	0.0002402	2.374E-05
T2-2	Average % of representation	0	8.66E-06	0	0	0	0	0.0006192	0
	Standard Deviation	0	1.225E-05	0	0	0	0	0.000153	0
T2-3	Average % of representation	0	9.066E-05	8.996E-06	0	9.136E-06	0	0.0016859	3.598E-05
	Standard Deviation	0	9.891E-07	1.272E-05	0	1.292E-05	0	5.853E-05	5.089E-05
T3-1	Average % of representation	1.769E-05	0.0002379	0.0001759	7.866E-06	0.0001573	0	6.977E-05	0.0002605
	Standard Deviation	2.501E-05	8.631E-05	2.632E-05	1.112E-05	0.0002225	0	7.642E-05	5.686E-05
T3-2	Average % of representation	0	9.227E-06	0	0	9.227E-06	0	0	0
	Standard Deviation	0	1.305E-05	0	0	1.305E-05	0	0	0
T3-3	Average % of representation	0	2.771E-05	0	0	7.154E-05	0	0	0
	Standard Deviation	0	8.205E-06	0	0	5.377E-05	0	0	0
T4-1	Average % of representation	1.235E-05	0	0	1.932E-05	3.437E-05	0	0.0014769	0
	Standard Deviation	1.747E-05	0	0	2.732E-05	2.128E-05	0	9.701E-05	0
T4-2	Average % of representation	0	0	1.979E-05	9.893E-06	3.875E-05	0	0.0012967	4.947E-05
	Standard Deviation	0	0	2.798E-05	1.399E-05	2.682E-05	0	0.000181	6.996E-05
T4-3	Average % of representation	5.521E-06	0	0	0	2.208E-05	0	0.0017501	4.604E-05
	Standard Deviation	7.808E-06	0	0	0	3.123E-05	0	0.0002577	2.647E-06
T5-1	Average % of representation	0	0	0	5.972E-06	0	0	1.778E-05	0
	Standard Deviation	0	0	0	8.446E-06	0	0	8.633E-06	0
T5-2	Average % of representation	0	2.387E-05	0	6.282E-05	3.018E-05	0	1.509E-05	0
	Standard Deviation	0	8.931E-06	0	3.92E-05	4.268E-05	0	2.134E-05	0
T5-3	Average % of representation	0	1.293E-05	0	1.806E-05	0	2.586E-05	0	0
	Standard Deviation	0	1.829E-05	0	1.157E-06	0	3.657E-05	0	0
T6-1	Average % of representation	0	9.809E-05	5.373E-05	5.454E-06	2.336E-05	0.0001044	7.768E-05	9.728E-06
	Standard Deviation	0	5.388E-05	6.565E-06	7.713E-06	5.525E-06	3.753E-05	1.355E-05	1.376E-05
T6-2	Average % of representation	0	0.0001759	4.273E-06	1.648E-05	8.546E-06	2.748E-05	2.627E-05	0
	Standard Deviation	0	4.132E-05	6.043E-06	1.294E-05	1.209E-05	2.612E-06	2.507E-05	0
T6-3	Average % of representation	0	0.0055394	2.066E-05	3.978E-05	2.582E-05	4.202E-05	0.0007082	0
	Standard Deviation	0	0.0007197	2.922E-05	1.244E-05	3.652E-05	1.362E-05	5.196E-05	0

T7-1	Average % of representation	0	0	0	0	0	2.014E-05	8.324E-05	0
	Standard Deviation	0	0	0	0	0	8.552E-06	1.807E-05	0
T7-2	Average % of representation	0	0	0	0	0	3.844E-05	0	5.594E-06
	Standard Deviation	0	0	0	0	0	8.933E-06	0	7.911E-06
T7-3	Average % of representation	0	5.591E-06	1.118E-05	0	0	7.314E-05	0.0001045	1.7E-05
	Standard Deviation	0	7.906E-06	1.581E-05	0	0	7.255E-06	6.867E-05	2.404E-05

E545E BC49	H1047H BC50	N345I BC8	I31M BC5	E542V BC2	H701P BC4	A1020V BC10	T1025T BC19	Q546E BC11	N1044K BC7	M1043I BC6	M1043V BC16
0.0307505	0.0241482	0.037649	0.035422	0.0538093	0.0437313	0.0271738	0.0131954	0.021989	0.035675	0.0111195	0.03047
0.0012357	0.0023787	0.0010168	0.0015571	0.0008157	0.0019215	0.0007389	1.086E-05	0.001133	0.0001319	0.000396	0.0018592
9.218E-06	0	0.3645009	0.0001989	0.0993379	0.0058979	5.005E-05	1.054E-05	0.0023523	0.0003148	9.218E-06	0.0001264
1.304E-05	0	0.0096989	0.000162	0.0023851	0.0001544	1.864E-05	1.49E-05	4.166E-05	1.954E-06	1.304E-05	2.977E-05
0.0006452	0	0.0025817	9.708E-06	0.0018572	0.0020486	9.708E-06	8.335E-06	0.0026079	9.159E-05	0	0.0004288
0.0003231	0	2.657E-05	1.373E-05	0.0001553	6.828E-05	1.373E-05	1.179E-05	0.0002934	3.523E-05	0	0.0001349
2.034E-05	1.015E-05	0.0263092	0.0001117	0.044501	0.0095377	4.061E-05	6.092E-05	0.0062572	0.0002338	0	8.121E-05
2.876E-05	1.435E-05	0.0008192	4.291E-05	0.0001707	0.0005732	2.866E-05	2.863E-05	1.839E-05	0.0002446	0	5.733E-05
2.008E-05	8.394E-06	0.0015589	6.04E-05	0.0004024	0.000196	7.703E-05	5.859E-05	0.8172896	1.679E-05	0	7.373E-05
2.84E-05	1.187E-05	0.0002169	5.702E-05	0.0001431	6.355E-05	6.145E-05	5.912E-05	0.0079324	2.374E-05	0	9.312E-06
2.222E-05	0	0.0162684	0.0001903	0.0150126	0.0002657	4.33E-05	0.0002065	0.6714735	3.464E-05	4.199E-05	0.0002546
3.142E-05	0	0.0007273	4.922E-05	0.0003968	3.28E-05	6.123E-05	0.0001978	0.0102759	4.899E-05	3.489E-05	1.709E-05
1.799E-05	0	0.0030193	0.0001909	0.0435663	0.0003979	4.526E-05	0.0001899	0.7357384	9.136E-06	1.827E-05	0.0001362
2.544E-05	0	9.704E-05	9.183E-05	0.0037298	0.0001751	1.233E-05	8.767E-05	0.0075912	1.292E-05	2.584E-05	3.995E-05
0.0382291	0.0001809	0.0009829	0.000232	0.0227109	0.0001838	1.573E-05	7.866E-06	0.0191318	0.0002939	0	0.0957238
0.0014889	5.57E-05	1.062E-05	2.792E-05	7.683E-05	1.52E-05	2.225E-05	1.112E-05	0.0005575	5.963E-05	0	0.004708
9.079E-05	1.747E-05	0.0008869	9.128E-05	0.048844	0.0004917	2.768E-05	0	0.0141549	0.000232	1.747E-05	0.01127
5.429E-05	2.47E-05	7.982E-05	7.969E-05	0.001336	9.515E-05	3.915E-05	0	0.0001556	6.715E-05	2.47E-05	0.000399
5.285E-05	0	0.0006613	6.703E-05	0.0099545	0.0001959	6.638E-05	0	0.0202763	0.0003455	0	0.0075253
4.375E-05	0	3.65E-05	9.48E-05	0.000735	6.379E-05	9.153E-07	0	0.0003306	3.826E-05	0	0.000757
0.0082008	4.941E-05	0.0306073	5.907E-05	0.0203262	0.0001379	0.0008639	0.0002958	0.0740244	0.0156537	3.437E-05	0.0025169
0.0001775	6.988E-05	0.0003914	5.622E-05	0.0006051	0.0001601	0.0002109	3.587E-05	0.0092966	0.0015223	2.128E-05	0.0001443
0.0008267	0	0.0016062	8.018E-05	0.0134594	0.000534	0.0001296	0	0.0201851	0.0010203	9.893E-06	0.0014696
6.108E-06	0	0.0004148	2.944E-05	0.0006093	2.826E-07	4.051E-05	0	0.0005915	9.617E-05	1.399E-05	0.0001603
0.0013345	1.351E-05	0.0008814	0.0001221	0.1334538	0.0002068	4.052E-05	4.298E-05	0.076964	0.0031356	1.597E-05	0.0010661
0.0001228	3.485E-06	4.953E-05	1.464E-05	0.0047998	6.665E-05	1.045E-05	2.955E-05	0.000333	0.0004213	2.259E-05	0.0002881
0	1.792E-05	0.000772	0.0001715	0.0253521	0.0001002	5.972E-06	0	0.0003841	8.255E-05	2.933E-05	0.0305834
0	2.534E-05	0.0001965	2.777E-05	0.0001263	2.347E-05	8.446E-06	0	3.114E-05	1.539E-05	2.459E-05	0.0007854
0	0	0.0045066	0.0003064	0.0550817	0.0062556	1.509E-05	0.0001509	0.000954	3.264E-05	3.018E-05	0.0033596
0	0	0.0002426	3.619E-05	0.0011515	0.0001594	2.134E-05	0.0002134	0.0002394	3.479E-06	4.268E-05	0.000755
0	4.555E-05	0.0012857	3.017E-05	0.0005383	0.0003901	9.133E-05	8.62E-06	0.0010619	4.124E-05	0.0001787	0.0157451
0	1.566E-05	0.0005102	4.267E-05	6.633E-05	0.0002225	0.0001025	1.219E-05	9.988E-05	2.176E-05	9.428E-05	0.0009575
0.0001361	0	0.0533578	4.031E-05	0.0415483	3.427E-05	0	5.1E-05	0.0648165	0.0044304	0.0003074	0.0047117
6.9E-05	0	0.00235	4.326E-05	0.001319	2.095E-05	0	1.042E-05	0.0017378	0.0006272	3.576E-05	0.0004173
0.000168	8.546E-06	0.305736	7.333E-06	0.1681115	6.533E-05	8.546E-06	7.021E-05	0.0767885	0.0101188	1.833E-05	0.0022293
3.208E-05	1.209E-05	0.0085174	1.037E-05	0.0032921	4.054E-05	1.209E-05	5.781E-05	0.002632	0.0009439	2.592E-05	0.0003005
4.565E-05	3.392E-05	0.1075391	3.685E-05	0.0045731	1.033E-05	1.326E-05	2.247E-05	0.0307309	0.0019081	0.0001002	0.0313695
4.995E-05	2.507E-05	0.0010846	6.315E-06	2.511E-05	1.461E-05	4.146E-06	2.568E-06	0.0019872	0.0001794	4.338E-06	0.0002024

7.046E-06	0	0.001634	0	0.0052545	4.365E-06	4.296E-05	0	0.0053613	0.00043	0.0001131	0.0265986
9.965E-06	0	0.0004174	0	0.0001365	6.172E-06	9.67E-07	0	0.0004669	0.0001696	5.211E-07	0.0012479
0	0	0.0108487	0	0.0031488	5.594E-06	2.238E-05	0	0.0227934	0.0005996	0.0001352	0.0516683
0	0	0.0003744	0	0.0003392	7.911E-06	3.164E-05	0	7.442E-05	0.0002121	7.771E-05	0.0006988
0	0	0.0037341	0	0.0072772	1.118E-05	5.928E-05	2.818E-05	0.0606525	0.0006567	0.000155	0.1443183
0	0	0.0001113	0	0.0001448	1.581E-05	3.639E-05	8.232E-06	0.0001347	0.0002014	4.527E-05	0.0014034

Q546P BC17	E545Q BC3	P539R BC29	K111N BC24	H1047Y BC23	E453K BC1	Q546R BC27	G1049R BC28	Q546K BC20	E545G BC52
0.0682495	0.0378376	0.0340888	0.0528484	0.0493556	0.0452767	0.0374583	0.0623014	0.0465517	0.0098689
0.0007777	0.0008214	0.0002045	0.0006422	0.0008024	0.0031286	0.0010855	0.0029198	0.0014728	0.0004064
0.0928192	0.0051143	0.0002147	0.000652	0.0184325	0.0380449	0.0029647	0.2774385	0.0900953	0.0007613
0.0011241	0.0010539	0.0001733	6.166E-05	0.0002829	5.972E-05	9.958E-05	0.0001727	0.0069905	8.59E-05
0.9381514	0.0139844	0.0003138	5.138E-05	0.0004707	0.0032757	0.0006427	0.0248607	0.007272	0.0004524
0.0013853	0.0004737	0.0001692	4.521E-05	0.0002538	3.544E-05	5.767E-05	0.0005335	0.0005365	7.406E-05
0.0195148	0.001544	0.0002946	0.0002031	0.0029559	0.002905	0.0012186	0.8558488	0.0246442	0.0018891
0.0020865	3.128E-05	4.358E-05	5.713E-05	1.925E-05	0.0001963	0.0004289	0.0030681	0.0018507	0.0002842
0.0138829	0.0093497	0.0013679	8.542E-05	0.0002163	8.887E-05	0.0347919	0.0054454	0.114217	2.683E-05
0.0005225	0.0006636	0.0002022	4.958E-05	5.027E-05	4.05E-05	0.0027178	6.226E-05	0.0049193	9.542E-06
0.0125069	0.0253401	0.1980253	0.0005897	0	0.000157	0.0005375	0.0284869	0.0299063	8.66E-06
0.0006643	0.0003898	0.0088279	0.0002683	0	9.636E-05	2.54E-05	0.0021989	0.0020396	1.225E-05
0.0237497	0.0205403	0.010917	0.0006078	0.0001262	0.0004891	0.0021013	0.1159973	0.0402836	2.741E-05
0.0019845	0.0003656	0.0004012	7.073E-05	0.0001268	7.159E-05	0.000336	0.0024139	0.0010677	3.876E-05
0.0093054	0.0108369	0.0004777	0.0001583	0.1304703	0.0015483	0.0005043	0.6597481	0.008223	0.0001081
0.0005221	0.0001071	7.482E-05	1.31E-06	0.0030714	0.0006138	8.783E-05	0.0050486	0.0009272	2.835E-06
0.0014338	0.0020334	0.0003306	2.768E-05	0.0041427	0.0017285	0.0008195	0.9081557	0.004969	0.0002165
0.0005663	0.0001876	7.602E-05	3.915E-05	0.0001693	0.0006437	0.000146	0.000732	0.0003323	5.916E-05
0.0020612	0.0069182	0.0013528	4.963E-05	0.0042435	0.0112706	0.0011137	0.9291391	0.0044162	0.0001908
0.0004978	0.0005491	5.385E-05	2.278E-05	0.0001133	0.0007951	0.0002735	0.0010787	0.0006984	9.104E-06
0.2842414	0.246131	0.0098718	0.0010135	0.018803	0.0080267	0.0673233	0.1405629	0.069171	0.0005427
0.0089664	0.0076903	0.0008194	0.0003152	0.0019206	0.0002052	0.0055501	0.0007638	0.0044944	0.0002434
0.3957948	0.0097704	0.0129454	9.543E-05	0.0593727	0.0007049	0.0116021	0.3734684	0.0895364	0.0059736
0.0125663	0.0018808	0.0005666	3.294E-05	0.0023886	0.0002623	0.0009413	0.001239	0.0045029	0.0008983
0.0239284	0.001548	0.0066168	0.0272151	0.0028079	0.000299	0.5040372	0.1167888	0.0975299	0.0001277
0.0001733	0.0002468	0.0005268	0.0006127	0.0004106	0.0001418	0.0020711	0.0073845	0.0004511	2.245E-05
0.0360855	6.477E-05	0.0005013	0.0004434	5.295E-05	8.215E-05	4.167E-05	0.612873	0.2923326	0
0.0013319	2.403E-05	8.392E-05	6.549E-05	2.421E-05	6.551E-05	4.242E-05	0.0015887	0.0035923	0
0.8563177	0.0002222	0.0014962	0.0023968	0.0005665	5.019E-05	0	0.0298264	0.038282	1.755E-05
0.0064184	5.811E-05	0.0007011	0.0010068	0.0001806	2.83E-05	0	0.001996	0.0001537	2.482E-05
0.1828765	2.237E-05	0.0009875	0.0018799	2.319E-05	4.986E-05	1.375E-05	0.7640468	0.0306265	0
0.0028897	4.939E-06	0.0001152	3.758E-05	2.06E-05	9.565E-06	7.252E-06	0.0031791	0.001001	0
0.0191037	0.0028782	0.0141017	0.0002466	0.1949102	0.0037416	0.0193108	0.4345285	0.1406969	0.0006755
0.000519	0.0004108	1.992E-05	0.0001328	0.0090445	0.0004625	0.0001103	0.0020294	0.0101442	4.734E-05
0.0094949	0.0006443	0.0009698	0.0034321	0.030474	0.0009111	0.0072132	0.3560035	0.027114	0.0001496
7.37E-05	9.193E-05	0.0001271	0.0004154	0.0002909	0.0002101	0.0002044	0.0012995	0.000905	6.639E-05
0.0109711	0.0005563	0.0014889	0.0019154	0.6102788	0.0197796	0.0589567	0.0840359	0.0287082	0.0005497
0.0010649	0.0001293	0.0001043	0.0003714	0.0098829	0.0014439	0.0038645	0.0019931	0.0013324	4.701E-05

0.0053377	0.0037807	7.283E-05	3.86E-05	0.0011956	8.224E-05	0.017908	0.8918551	0.0398665	0.0003135
0.0001546	0.0003443	1.658E-05	5.206E-06	0.0001362	5.652E-05	0.0007716	0.0048779	0.0033452	0.0001245
0.0084787	0.0158377	0.000687	1.678E-05	0.0011533	0.0001073	0.0065555	0.8513621	0.0264154	0.0001202
0.0006145	0.0012909	0.0001993	2.373E-05	0.0001094	3.815E-05	0.0002542	8.55E-05	0.0021987	1.174E-05
0.0218556	0.0101526	0.0005523	6.755E-05	0.0829387	0.0003207	0.0490463	0.5539504	0.0630728	0.0009392
0.0004693	0.0014391	0.0001327	6.509E-07	0.0023132	2.079E-05	0.0042616	0.0073985	0.0047908	0.000174