

OTS-Numbers: OTS-1000ex

No	Gene	CDS	AA
1	AKT1	c.49G>A	p.E17K
2	AKT1	c.155T>G	p.L52R
3	AKT1	c.235C>A	p.Q79K
4	AKT1	c.726G>A	p.E242=
5	ALK	c.3522C>A	p.F1174L
6	ALK	c.3824G>A	p.R1275Q
7	ALK	c.4338C>T	p.T1446=
8	ALK	c.2535T>C	p.G845=
9	ARID1A	c.5965C>T	p.R1989X
10	ARID1A	c.5548dupG	p.D1850Gfs*4
11	ARID1A	c.3826C>T	p.R1276X
12	ARID1A	c.5161C>T	p.R1721X
13	ARID1A	c.2077C>T	p.R693X
14	ARID1A	c.4003C>T	p.R1335X
15	ARID1A	c.2830C>T	p.Q944X
16	ARID1A	c.5164C>T	p.R1722X
17	ARID1A	c.4336C>T	p.R1446X
18	ARID1A	c.6259G>A	p.G2087R
19	ARID1A	c.6472C>T	p.R2158X
20	ARID1A	c.4381C>T	p.R1461X
21	ARID1A	c.4582C>T	p.R1528X
22	ARID1A	c.3634C>T	p.Q1212X
23	ARID1A	c.1897C>T	p.Q633X
24	ARID1A	c.2248C>T	p.R750X
25	ARID1A	c.3598C>T	p.Q1200X
26	ARID1A	c.1435C>T	p.Q479X
27	ARID1A	c.3424C>T	p.Q1142X
28	ARID1A	c.4750C>T	p.Q1584X
29	ARID1A	c.1210C>T	p.Q404X
30	ARID1A	c.1901C>G	p.S634X
31	ARID1A	c.1177C>T	p.Q393X
32	ARID1A	c.1696C>T	p.Q566X
33	ARID1A	c.2032C>T	p.Q678X
34	ARID1A	c.4477C>T	p.Q1493X
35	ARID1A	c.4624G>T	p.E1542X
36	ARID1A	c.1543C>T	p.Q515X
37	ARID1A	c.2518C>T	p.Q840X
38	ARID1A	c.2632C>T	p.Q878X
39	ARID1A	c.4087C>T	p.Q1363X
40	ARID1A	c.6260G>A	p.G2087E
41	ARID2	c.890C>T	p.S297F
42	ARID2	c.940C>T	p.R314C
43	ARID2	c.1624C>T	p.R542X
44	ARID2	c.820C>T	p.R274X
45	ASXL1	c.2077C>T	p.R693X
46	ASXL1	c.1934dup	p.G646WfsX12
47	ATM	c.5557G>A	p.D1853N
48	ATM	c.1009C>T	p.R337C
49	ATM	c.9023G>A	p.R3008H
50	ATM	c.1010G>A	p.R337H
51	ATM	c.7875G>A	p.Q2625=
52	ATM	c.5460T>C	p.Y1820=
53	ATRX	c.4276C>T	p.R1426X
54	ATRX	c.5579A>G	p.N1860S
55	ATRX	c.2719C>T	p.R907X
56	ATRX	c.2341C>T	p.R781X
57	ATRX	c.5408G>A	p.R1803H
58	ATRX	c.748C>T	p.R250X
59	BCL6	c.1781G>A	p.R594Q
60	BCOR	c.4376A>G	p.N1459S
61	BRAF	c.1799T>A	p.V600E
62	BRAF	c.1798_1799delinsA	p.V600K
63	BRAF	c.1801A>G	p.K601E
64	BRAF	c.1781A>G	p.D594G
65	BRAF	c.1406G>C	p.G469A
66	BRAF	c.1780G>A	p.D594N
67	BRAF	c.1397G>T	p.G466V

No	Gene	CDS	AA
68	BRAF	c.1742A>G	p.N581S
69	BRAF	c.1798G>A	p.V600M
70	BRAF	c.1397G>A	p.G466E
71	BRAF	c.1405G>A	p.G469R
72	BRAF	c.1406G>T	p.G469V
73	BRCA1	c.2612C>T	p.P871L
74	BRCA1	c.3548A>G	p.K1183R
75	BRCA1	c.2077G>A	p.D693N
76	BRCA1	c.4900A>G	p.S1634G
77	BRCA1	c.3113A>G	p.E1038G
78	BRCA2	c.7397T>C	p.V2466A
79	BRCA2	c.865A>C	p.N289H
80	BRCA2	c.2971A>G	p.N991D
81	BRCA2	c.1114A>C	p.N372H
82	BRCA2	c.1365A>G	p.S455=
83	BRCA2	c.2229T>C	p.H743=
84	BRCA2	c.3807T>C	p.V1269=
85	BRAF	c.1099_1150del	p.L367Tfs*46
86	BRAF	c.1876G>A	p.E626K
87	BRAF	c.688G>A	p.D230N
88	BRAF	c.589T>C	p.Y197H
89	BRAF	c.590A>G	p.Y197C
90	BRCA1	c.589T>A	p.Y197N
91	BRCA1	c.590A>C	p.Y197S
92	BRCA1	c.590A>T	p.Y197F
93	BRCA1	c.589T>G	p.Y197D
94	BRCA1	c.67C>T	p.Q23X
95	BRCA2	c.1774G>A	p.A592T
96	BRCA2	c.1901C>T	p.A634V
97	BRCA2	c.187C>T	p.R63X
98	CDKN2A	c.238C>T	p.R80X
99	CDKN2A	c.172C>T	p.R58X
100	CDKN2A	c.247C>T	p.H83Y
101	CDKN2A	c.330G>A	p.W110X
102	CDKN2A	c.341C>T	p.P114L
103	CDKN2A	c.262G>T	p.E88X
104	CDKN2A	c.329G>A	p.W110X
105	CDKN2A	c.358G>T	p.E120X
106	CDKN2A	c.322G>T	p.D108Y
107	CDKN2A	c.250G>T	p.D84Y
108	CDKN2A	c.250G>A	p.D84N
109	CDKN2A	c.205G>T	p.E69X
110	CDKN2A	c.242C>T	p.P81L
111	CDKN2A	c.148C>T	p.Q50X
112	CDKN2A	c.322G>A	p.D108N
113	CDKN2A	c.35C>A	p.S12X
114	CDKN2A	c.143C>T	p.P48L
115	CDKN2A	c.181G>T	p.E61X
116	CDKN2A	c.251A>G	p.D84G
117	CDKN2A	c.262G>A	p.E88K
118	CDKN2A	c.322G>C	p.D108H
119	CDKN2A	c.442G>A	p.A148T
120	CDKN2A	c.387C>A	p.Y129X
121	CDKN2A	c.107C>G	p.A36G
122	CDKN2A	c.170C>T	p.A57V
123	CDKN2A	c.248A>G	p.H83R
124	CDKN2A	c.305C>T	p.A102V
125	CDKN2A	c.45G>A	p.W15X
126	CDKN2A	c.220G>T	p.D74Y
127	CDKN2A	c.97G>T	p.E33X
128	CDKN2A	c.457G>A	p.E153K
129	CDKN2A	c.244G>A	p.V82M
130	CDKN2A	c.227C>T	p.A76V
131	CDKN2A	c.247C>G	p.H83D
132	CDKN2A	c.220G>A	p.D74N
133	CDKN2A	c.355G>T	p.E119X
134	CDKN2A	c.387C>G	p.Y129X

No	Gene	CDS	AA
135	CDKN2A	c.132C>A	p.Y44X
136	CDKN2A	c.290T>G	p.L97R
137	CDKN2A	c.221A>C	p.D74A
138	CDKN2A	c.305C>A	p.A102E
139	CDKN2A	c.226G>A	p.A76T
140	CDKN2A	c.389T>A	p.L130Q
141	CDKN2A	c.202G>A	p.A68T
142	CDKN2A	c.301G>T	p.G101W
143	CDKN2A	c.128G>T	p.S43I
144	CDKN2A	c.323A>G	p.D108G
145	CDKN2A	c.251A>T	p.D84V
146	CDKN2A	c.392G>A	p.R131H
147	CDKN2A	c.79G>T	p.E27X
148	CHD4	c.417G>T	p.E139D
149	CHD4	c.2924G>A	p.R975H
150	CHD4	c.3484C>T	p.R1162W
151	CHD4	c.3313C>T	p.R1105W
152	CHD4	c.4013G>T	p.R1338I
153	CIC	c.2816G>C	p.G939A
154	CIC	c.643C>T	p.R215W
155	CIC	c.604C>T	p.R202W
156	CIC	c.601C>T	p.R201W
157	CIC	c.644G>A	p.R215Q
158	CIC	c.4533C>T	p.I1511=
159	CTNNB1	c.121A>G	p.T41A
160	CTNNB1	c.134C>T	p.S45F
161	CTNNB1	c.133T>C	p.S45P
162	CTNNB1	c.110C>T	p.S37F
163	CTNNB1	c.98C>G	p.S33C
164	CTNNB1	c.110C>G	p.S37C
165	CTNNB1	c.94G>T	p.D32Y
166	CTNNB1	c.98C>T	p.S33F
167	CTNNB1	c.122C>T	p.T41I
168	CTNNB1	c.94G>A	p.D32N
169	CTNNB1	c.101G>T	p.G34V
170	CTNNB1	c.101G>A	p.G34E
171	CTNNB1	c.95A>G	p.D32G
172	CTNNB1	c.100G>A	p.G34R
173	CTNNB1	c.97T>C	p.S33P
174	CTNNB1	c.98C>A	p.S33Y
175	CTNNB1	c.109T>G	p.S37A
176	CTNNB1	c.95A>T	p.D32V
177	CTNNB1	c.94G>C	p.D32H
178	CTNNB1	c.107A>C	p.H36P
179	CTNNB1	c.110C>A	p.S37Y
180	CTNNB1	c.104T>G	p.I35S
181	CTNNB1	c.1004A>T	p.K335I
182	CTNNB1	c.109T>C	p.S37P
183	CTNNB1	c.134C>A	p.S45Y
184	CTNNB1	c.134C>G	p.S45C
185	CTNNB1	c.97T>G	p.S33A
186	CTNNB1	c.100G>C	p.G34R
187	CTNNB1	c.133T>G	p.S45A
188	CTNNB1	c.95A>C	p.D32A
189	CTNNB1	c.1161T>A	p.N387K
190	CTNNB1	c.104T>C	p.I35T
191	CTNNB1	c.1004A>C	p.K335T
192	CTNNB1	c.1161T>G	p.N387K
193	CTNNB1	c.130C>G	p.P44A
194	CTNNB1	c.122C>A	p.T41N
195	DICER1	c.5113G>A	p.E1705K
196	DICER1	c.5125G>A	p.D1709N
197	DICER1	c.5438A>G	p.E1813G
198	DICER1	c.5425G>A	p.G1809R
199	DNMT3A	c.2645G>A	p.R882H
200	DNMT3A	c.2644C>T	p.R882C
201	EGFR	exon 19 del	exon 19 del

OTS-Numbers: OTS-1000ex

No	Gene	CDS	AA
202	EGFR	c.2573T>G	p.L858R
203	EGFR	c.2235_2249del	p.E746_A750del
204	EGFR	c.2236_2250del	p.E746_A750del
205	EGFR	c.2369C>T	p.T790M
206	EGFR	c.2582T>A	p.L861Q
207	EGFR	c.2156G>C	p.G719A
208	EGFR	c.2155G>A	p.G719S
209	EGFR	c.2303G>T	p.S768I
210	EGFR	c.866C>T	p.A289V
211	EGFR	c.1793G>T	p.G598V
212	EGFR	c.2155G>T	p.G719C
213	EGFR	c.2125G>A	p.E709K
214	EGFR	c.323G>A	p.R108K
215	EGFR	c.865G>A	p.A289T
216	EGFR	c.2497T>G	p.L833V
217	EGFR	c.2126A>C	p.E709A
218	EGFR	c.664C>T	p.R222C
219	EGFR	c.1562G>A	p.R521K
220	EGFR	c.2543C>T	p.P848L
221	EGFR	c.185T>G	p.L62R
222	EGFR	c.2320G>A	p.V774M
223	EGFR	c.2240T>C	p.L747S
224	EGFR	c.787A>C	p.T263P
225	EGFR	c.2504A>T	p.H835L
226	EGFR	c.866C>A	p.A289D
227	EGFR	c.2527G>A	p.V843I
228	EGFR	c.2327G>A	p.R776H
229	EGFR	c.754C>T	p.R252C
230	EGFR	c.340G>A	p.E114K
231	ERBB2	c.929C>T	p.S310F
232	ERBB2	c.2264T>C	p.L755S
233	ERBB2	c.2329G>T	p.V777L
234	ERBB2	c.2033G>A	p.R678Q
235	ERBB2	c.3508C>G	p.P1170A
236	ERBB2	c.2524G>A	p.V842I
237	ERBB2	c.929C>A	p.S310Y
238	ERBB2	c.1963A>G	p.I655V
239	ERBB2	c.2305G>T	p.D769Y
240	ERBB2	c.2301C>G	p.I767M
241	ERBB2	c.2329G>C	p.V777L
242	ERBB2	c.2606T>G	p.L869R
243	ERBB2	c.2584A>G	p.T862A
244	ERBB2	c.2305G>C	p.D769H
245	ERBB2	c.3647C>A	p.A1216D
246	ERBB2	c.1960A>G	p.I654V
247	ERBB2	c.2198C>T	p.T773I
248	ERBB2	c.2327G>T	p.G776V
249	ERBB2	c.829G>T	p.D277Y
250	ERBB2	c.520C>T	p.H174Y
251	ERBB2	c.808G>T	p.A270S
252	ERBB2	c.1979G>A	p.G660D
253	ERBB2	c.3382G>A	p.V1128I
254	ERBB2	c.428G>A	p.R143Q
255	ERBB2	c.874G>C	p.G292R
256	ERBB2	c.2305G>A	p.D769N
257	ERBB2	c.2350C>T	p.R784C
258	ERBB2	c.310G>A	p.V104M
259	ERBB3	c.2783A>G	p.E928G
260	ERBB3	c.310G>T	p.V104L
261	ERBB3	c.889G>T	p.D297Y
262	ERBB3	c.850G>A	p.G284R
263	ERBB3	c.695C>T	p.A232V
264	ERBB3	c.994G>A	p.E332K
265	ERBB3	c.3355A>T	p.S1119C
266	ERBB3	c.2537G>T	p.S846I
267	ERBB3	c.985A>G	p.K329E
268	ERBB3	c.1423C>T	p.R475W

No	Gene	CDS	AA
269	ERBB3	c.2000G>A	p.R667H
270	ERBB3	c.273G>A	p.M91I
271	ERBB3	c.3348G>A	p.R1116=
272	ERBB4	c.2131C>T	p.R711C
273	ERBB4	c.316C>T	p.R106C
274	ERBB4	c.55A>G	p.T19A
275	ERBB4	c.283C>T	p.R95C
276	ERBB4	c.1354G>A	p.E452K
277	ERBB4	c.2512C>T	p.R838X
278	BRCA1	c.2612C>T	p.P871L
279	BRCA1	c.3548A>G	p.K1183R
280	BRCA1	c.2077G>A	p.D693N
281	BRCA1	c.4900A>G	p.S1634G
282	BRCA1	c.3113A>G	p.E1038G
283	BRCA1	c.3119G>A	p.S1040N
284	BRCA2	c.7397T>C	p.V2466A
285	BRCA2	c.865A>C	p.N289H
286	BRCA2	c.2971A>G	p.N991D
287	BRCA2	c.1365A>G	p.S455=
288	BRCA2	c.2229T>C	p.H743=
289	BRCA2	c.1114A>C	p.N372H
290	BRCA2	c.3807T>C	p.V1269=
291	ERCC2	c.934G>A	p.D312N
292	ERCC2	c.713A>G	p.N238S
293	ERCC5	c.1586G>C	p.C529S
294	ERCC5	c.760A>G	p.M254V
295	ERCC5	c.641G>A	p.R214H
296	ERCC5	c.2636A>G	p.N879S
297	ERCC5	c.3310G>C	p.D1104H
298	ERCC5	c.3157G>C	p.G1053R
299	ESR1	c.908A>G	p.K303R
300	ESR1	c.1613A>G	p.D538G
301	ESR1	c.1610A>C	p.Y537S
302	ESR1	c.1138G>C	p.E380Q
303	ESR1	c.1610A>G	p.Y537C
304	ESR1	c.1609T>A	p.Y537N
305	ESR1	c.1607T>A	p.L536H
306	ESR1	c.739G>A	p.E247K
307	ESR1	c.1387T>C	p.S463P
308	ESR1	c.932C>T	p.T311M
309	ESR1	c.1688C>T	p.T563M
310	EZH2	c.1936T>A	p.Y646N
311	EZH2	c.1937A>T	p.Y646F
312	EZH2	c.1937A>C	p.Y646S
313	EZH2	c.1936T>C	p.Y646H
314	EZH2	c.2045C>G	p.A682G
315	EZH2	c.2075C>T	p.A692V
316	FANCA	c.2151G>T	p.M717I
317	FANCA	c.4303G>C	p.A1435P
318	FANCA	c.1501G>A	p.G501S
319	FANCA	c.2426G>A	p.G809D
320	FBXW7	c.1393C>T	p.R465C
321	FBXW7	c.1394G>A	p.R465H
322	FBXW7	c.1513C>T	p.R505C
323	FBXW7	c.1436G>A	p.R479Q
324	FBXW7	c.1745C>T	p.S582L
325	FBXW7	c.1513C>G	p.R505G
326	FBXW7	c.2065C>T	p.R689W
327	FBXW7	c.832C>T	p.R278X
328	FBXW7	c.1099C>T	p.R367X
329	FBXW7	c.1972C>T	p.R658X
330	FBXW7	c.1268G>T	p.G423V
331	FBXW7	c.1514G>A	p.R505H
332	FBXW7	c.1435C>G	p.R479G
333	FBXW7	c.1514G>T	p.R505L
334	FBXW7	c.1177C>T	p.R393X
335	FBXW7	c.1435C>T	p.R479X

No	Gene	CDS	AA
336	FBXW7	c.1429G>A	p.G477S
337	FBXW7	c.1634A>G	p.Y545C
338	FBXW7	c.2077G>A	p.E693K
339	FBXW7	c.1436G>C	p.R479P
340	FBXW7	c.1436G>T	p.R479L
341	FBXW7	c.1385G>T	p.S462F
342	FBXW7	c.2066G>A	p.R689Q
343	FBXW7	c.670C>T	p.R224X
344	FBXW7	c.1513C>A	p.R505S
345	FBXW7	c.1322G>A	p.R441Q
346	FBXW7	c.664C>T	p.R222X
347	FBXW7	c.1627A>G	p.R543G
348	FBXW7	c.1973G>A	p.R658Q
349	FBXW7	c.41G>A	p.R14Q
350	FBXW7	c.1394G>T	p.R465L
351	FBXW7	c.1558G>A	p.D520N
352	FGFR2	c.755C>G	p.S252W
353	FGFR2	c.1650T>A	p.N550K
354	FGFR2	c.1147T>C	p.C383R
355	FGFR2	c.1127A>G	p.Y376C
356	FGFR2	c.1650T>G	p.N550K
357	FGFR2	c.1978A>G	p.K660E
358	FGFR2	c.758C>G	p.P253R
359	FGFR2	c.2183A>G	p.N728S
360	FGFR2	c.870G>C	p.W290C
361	FGFR2	c.629G>A	p.R210Q
362	FGFR3	c.746C>G	p.S249C
363	FGFR3	c.1124A>G	p.Y375C
364	FGFR3	c.742C>T	p.R248C
365	FLT3	c.2503G>T	p.D835Y
366	FLT3	c.2504A>T	p.D835V
367	FLT3	c.2503G>C	p.D835H
368	FLT3	c.680C>T	p.T227M
369	FLT3	c.2028C>A	p.N676K
370	FLT3	c.2505T>G	p.D835E
371	FOXA1	c.526A>G	p.I176V
372	FOXA1	c.749C>T	p.S250F
373	FOXA1	c.798C>G	p.F266L
374	FOXA1	c.676G>A	p.D226N
375	FOXL2	c.402C>G	p.C134W
376	FOXP1	c.1343C>T	p.S448L
377	FOXP1	c.97C>T	p.R33W
378	FOXP1	c.106C>T	p.R36W
379	GNAI1	c.626A>T	p.Q209L
380	GNAI1	c.547C>T	p.R183C
381	GNAQ	c.626A>G	p.Q209L
382	GNAQ	c.626A>C	p.Q209P
383	GNAQ	c.286A>T	p.T96S
384	GNAQ	c.548G>A	p.R183Q
385	GNAS	c.2530C>T	p.R844C
386	GNAS	c.2531G>A	p.R844H
387	H3F3A	c.83A>T	p.K28M
388	H3F3A	c.103G>T	p.G35W
389	H3F3A	c.103G>A	p.G35R
390	H3F3B	c.110A>T	p.K37M
391	HRAS	c.37G>C	p.G13R
392	HRAS	c.182A>G	p.Q61R
393	HRAS	c.35G>T	p.G12V
394	HRAS	c.182A>T	p.Q61L
395	HRAS	c.181C>A	p.Q61K
396	HRAS	c.34G>A	p.G12S
397	HRAS	c.35G>A	p.G12D
398	HRAS	c.38G>T	p.G13V
399	HRAS	c.34G>T	p.G12C
400	HRAS	c.38G>A	p.G13D
401	HRAS	c.37G>A	p.G13S
402	HRAS	c.183G>T	p.Q61H

OTS-Numbers: OTS-1000ex

No	Gene	CDS	AA
403	HRAS	c.34G>C	p.G12R
404	HRAS	c.35G>C	p.G12A
405	HRAS	c.37G>T	p.G13C
406	HRAS	c.175G>A	p.A59T
407	HRAS	c.351G>C	p.K117N
408	HRAS	c.351G>T	p.K117N
409	HRAS	c.81T>C	p.H27=
410	IDH1	c.395G>A	p.R132H
411	IDH1	c.394C>T	p.R132C
412	IDH1	c.394C>G	p.R132G
413	IDH1	c.394C>A	p.R132S
414	IDH1	c.395G>T	p.R132L
415	IDH2	c.419G>A	p.R140Q
416	IDH2	c.515G>A	p.R172K
417	IDH2	c.516G>T	p.R172S
418	IDH2	c.516G>T	p.R172M
419	IDH2	c.514A>G	p.R172G
420	IDH2	c.514A>T	p.R172W
421	IDH2	c.516G>C	p.R172S
422	IDH2	c.418C>T	p.R140W
423	IRF4	c.176A>G	p.K59R
424	IRF4	c.208C>G	p.L70V
425	JAK2	c.1849G>T	p.V617F
426	JAK3	c.1533G>A	p.M511I
427	JAK3	c.2164G>A	p.V722I
428	JAK3	c.1970G>A	p.R657Q
429	KDR	c.1416A>T	p.Q472H
430	KDR	c.889G>A	p.V297I
431	KDR	c.3095G>A	p.R1032Q
432	KDR	c.1040G>A	p.R347H
433	KIT	c.2447A>T	p.D816V
434	KIT	c.1727T>C	p.L576P
435	KIT	c.1676T>A	p.V559D
436	KIT	c.2446G>T	p.D816Y
437	KIT	c.2446G>C	p.D816H
438	KIT	c.1924A>G	p.K642E
439	KIT	c.1679T>A	p.V560D
440	KIT	c.1621A>C	p.M541L
441	KIT	c.2466T>G	p.N822K
442	KIT	c.1961T>C	p.V654A
443	KIT	c.2466T>A	p.N822K
444	KIT	c.1669T>G	p.W557G
445	KIT	c.1676T>C	p.V559A
446	KRAS	c.35G>A	p.G12D
447	KRAS	c.35G>T	p.G12V
448	KRAS	c.38G>A	p.G13D
449	KRAS	c.34G>T	p.G12C
450	KRAS	c.35G>C	p.G12A
451	KRAS	c.34G>A	p.G12S
452	KRAS	c.34G>C	p.G12R
453	KRAS	c.37G>T	p.G13C
454	KRAS	c.183A>C	p.Q61H
455	KRAS	c.436G>A	p.A146T
456	KRAS	c.182A>G	p.Q61R
457	KRAS	c.182A>T	p.Q61L
458	KRAS	c.183A>T	p.Q61H
459	KRAS	c.37G>A	p.G13S
460	KRAS	c.37G>C	p.G13R
461	KRAS	c.437C>T	p.A146V
462	KRAS	c.181C>A	p.Q61K
463	KRAS	c.38G>C	p.G13A
464	KRAS	c.38G>T	p.G13V
465	KRAS	c.351A>T	p.K117N
466	KRAS	c.175G>A	p.A59T
467	KRAS	c.40G>A	p.V14I
468	KRAS	c.64C>A	p.Q22K
469	KRAS	c.182A>C	p.Q61P

No	Gene	CDS	AA
470	KRAS	c.436G>C	p.A146P
471	KRAS	c.351A>C	p.K117N
472	KRAS	c.57G>T	p.L19F
473	KRAS	c.57G>C	p.L19F
474	KRAS	c.53C>A	p.A18D
475	KRAS	c.173C>T	p.T58I
476	KRAS	c.187G>A	p.E63K
477	KRAS	c.179G>A	p.G60D
478	KRAS	c.28G>A	p.G10R
479	KRAS	c.176C>G	p.A59G
480	KRAS	c.181C>G	p.Q61E
481	MAP2K1	c.370C>T	p.P124S
482	MAP2K1	c.167A>C	p.Q56P
483	MAP2K1	c.171G>T	p.K57N
484	MAP2K1	c.607G>A	p.E203K
485	MAP2K1	c.371C>T	p.P124L
486	MAP2K1	c.383G>A	p.G128D
487	MAP2K1	c.199G>A	p.D67N
488	MAP2K1	c.361T>A	p.C121S
489	MAPK1	c.964G>A	p.E322K
490	MAPK1	c.961G>A	p.D321N
491	MAPK1	c.404G>A	p.R135K
492	MAX	c.179G>A	p.R60Q
493	MAX	c.83A>G	p.H28R
494	MAX	c.223C>T	p.R75X
495	MED12	c.131G>A	p.G44D
496	MED12	c.130G>A	p.G44S
497	MET	c.3029C>T	p.T1010I
498	MET	c.3757T>G	p.Y1253D
499	MET	c.1124A>G	p.N375S
500	MLH1	c.655A>G	p.I219V
501	MLH1	c.1151T>A	p.V384D
502	MPL	c.1544G>T	p.W515L
503	MSH2	c.965G>A	p.G322D
504	MSH2	c.1738G>T	p.E580X
505	MSH2	c.2038C>T	p.R680X
506	MSH6	c.276A>G	p.P92=
507	MSH6	c.3261del	p.F1088Sfs*2
508	MSH6	c.3261dup	p.F1088Lfs*5
509	MSH6	c.116G>A	p.G39E
510	MTOR	c.6644C>A	p.S2215Y
511	MTOR	c.6644C>T	p.S2215F
512	MTOR	c.5395G>A	p.E1799K
513	MTOR	c.5930C>A	p.T1977K
514	MTOR	c.4379T>C	p.L1460P
515	MTOR	c.7280T>A	p.L2427Q
516	MTOR	c.7280T>G	p.L2427R
517	MTOR	c.6016G>T	p.V2006F
518	MTOR	c.7255G>A	p.E2419K
519	MTOR	c.5930C>G	p.T1977R
520	MTOR	c.5930C>T	p.T1977I
521	MTOR	c.5553C>T	p.S1851=
522	MTOR	c.6909G>A	p.L2303=
523	MYC	c.77A>G	p.N26S
524	MYC	c.482C>T	p.S161L
525	MYC	c.221C>T	p.P74L
526	MYCN	c.131C>T	p.P44L
527	MYCN	c.1333G>A	p.E445K
528	MYCN	c.1118G>A	p.R373Q
529	MYCN	c.904C>T	p.R302C
530	MYD88	c.818T>C	p.L273P
531	NF2	c.169C>T	p.R57X
532	NF2	c.1021C>T	p.R341X
533	NFE2L2	c.235G>C	p.E79Q
534	NFE2L2	c.85G>C	p.D29H
535	NFE2L2	c.101G>A	p.R34Q
536	NFE2L2	c.235G>A	p.E79K

No	Gene	CDS	AA
537	NFE2L2	c.100C>G	p.R34G
538	NFE2L2	c.86A>G	p.D29G
539	NFE2L2	c.246A>T	p.E82D
540	NFE2L2	c.101G>C	p.R34P
541	NFE2L2	c.230A>G	p.D77G
542	NFE2L2	c.88C>T	p.L30F
543	NFE2L2	c.92G>C	p.G31A
544	NFE2L2	c.92G>A	p.G31E
545	NFE2L2	c.245A>G	p.E82G
546	NFE2L2	c.246A>C	p.E82D
547	NFE2L2	c.85G>A	p.D29N
548	NFE2L2	c.242G>A	p.G81D
549	NFE2L2	c.244G>C	p.E82Q
550	NFE2L2	c.70T>C	p.W24R
551	NFE2L2	c.72G>C	p.W24C
552	NFE2L2	c.83T>C	p.I28T
553	NFE2L2	c.89T>G	p.L30R
554	NFE2L2	c.1495C>T	p.R499W
555	NFE2L2	c.230A>T	p.D77V
556	NFE2L2	c.241G>A	p.G81S
557	NFE2L2	c.242G>T	p.G81V
558	NFE2L2	c.85G>T	p.D29Y
559	NFE2L2	c.239C>A	p.T80K
560	NFE2L2	c.239C>G	p.T80R
561	NFE2L2	c.80A>G	p.D27G
562	NFE2L2	c.91G>A	p.G31R
563	NFE2L2	c.238A>C	p.T80P
564	NFE2L2	c.238A>G	p.T80A
565	NFE2L2	c.241G>C	p.G81R
566	NFE2L2	c.1705C>T	p.R569C
567	NFE2L2	c.229G>C	p.D77H
568	NFE2L2	c.236A>G	p.E79G
569	NFE2L2	c.245A>T	p.E82V
570	NFE2L2	c.68T>G	p.L23R
571	NFE2L2	c.76C>A	p.Q26K
572	NFE2L2	c.79G>T	p.D27Y
573	NFE2L2	c.95T>G	p.V32G
574	NFE2L2	c.101G>C	p.R34L
575	NFE2L2	c.1706G>A	p.R569H
576	NFE2L2	c.229G>T	p.D77Y
577	NFE2L2	c.236A>T	p.E79V
578	NFE2L2	c.239C>T	p.T80I
579	NFE2L2	c.241G>T	p.G81C
580	NFE2L2	c.77A>C	p.Q26P
581	NFE2L2	c.92G>T	p.G31V
582	NFE2L2	c.235G>T	p.E79X
583	NOTCH1	c.7541_7542del	p.P2514Rfs*4
584	NRAS	c.182A>G	p.Q61R
585	NRAS	c.181C>A	p.Q61K
586	NRAS	c.35G>A	p.G12D
587	NRAS	c.38G>A	p.G13D
588	NRAS	c.182A>T	p.Q61L
589	NRAS	c.34G>A	p.G12S
590	NRAS	c.34G>T	p.G12C
591	NRAS	c.37G>C	p.G13R
592	NRAS	c.183A>T	p.Q61H
593	NRAS	c.35G>T	p.G12V
594	NRAS	c.35G>C	p.G12A
595	NRAS	c.38G>T	p.G13V
596	NRAS	c.183A>C	p.Q61H
597	NRAS	c.34G>C	p.G12R
598	NT5C2	c.1100G>A	p.R367Q
599	PBRM1	c.2128C>T	p.R710X
600	PBRM1	c.2211A>G	p.T737=
601	PBRM1	c.4335A>G	p.P1445=
602	PBRM1	c.3522A>T	p.P1174=
603	PIK3CA	c.3140A>G	p.H1047R

OTS-Numbers: OTS-1000ex

No	Gene	CDS	AA
604	PIK3CA	c.1633G>A	p.E545K
605	PIK3CA	c.1624G>A	p.E542K
606	PIK3CA	c.3140A>T	p.H1047L
607	PIK3CA	c.1636C>A	p.Q546K
608	PIK3CA	c.263G>A	p.R88Q
609	PIK3CA	c.1035T>A	p.N345K
610	PIK3CA	c.1634A>G	p.E545G
611	PIK3CA	c.1258T>C	p.C420R
612	PIK3CA	c.2176G>A	p.E726K
613	PIK3CA	c.1637A>G	p.Q546R
614	PIK3CA	c.3139C>T	p.H1047Y
615	PIK3CA	c.241G>A	p.E81K
616	PIK3CA	c.3145G>C	p.G1049R
617	PIK3CA	c.3129G>T	p.M1043I
618	PIK3CA	c.353G>A	p.G118D
619	PIK3CA	c.1357G>A	p.E453K
620	PIK3CA	c.1633G>C	p.E545Q
621	PIK3CA	c.3127A>G	p.M1043V
622	PIK3CA	c.323G>A	p.R108H
623	PIK3CA	c.3062A>G	p.Y1021C
624	PIK3CA	c.277C>T	p.R93W
625	PIK3CA	c.331A>G	p.K111E
626	PIK3CA	c.3129G>A	p.M1043I
627	PIK3CA	c.3073A>G	p.T1025A
628	PIK3CA	c.1637A>C	p.Q546P
629	PIK3CA	c.317G>T	p.G106V
630	PIK3CA	c.113G>A	p.R38H
631	PIK3CA	c.1616C>G	p.P539R
632	PIK3CA	c.278G>A	p.R93Q
633	PIK3CA	c.1030G>A	p.V344M
634	PIK3CA	c.3145G>A	p.G1049S
635	PIK3CA	c.3132T>A	p.N1044K
636	PIK3CA	c.1031T>G	p.V344G
637	PIK3CA	c.1093G>A	p.E365K
638	PIK3CA	c.112C>T	p.R38C
639	PIK3CA	c.1635G>T	p.E545D
640	PIK3CA	c.1624G>C	p.E542Q
641	PIK3CA	c.1638G>T	p.Q546H
642	PIK3CA	c.1252G>A	p.E418K
643	PIK3CA	c.1173A>G	p.I391M
644	PIK3CA	c.1636C>G	p.Q546E
645	PIK3CA	c.2702G>T	p.C901F
646	PIK3CA	c.1635G>C	p.E545D
647	PIK3CA	c.3019G>C	p.G1007R
648	PIK3CA	c.333G>T	p.K111N
649	PIK3CA	c.1357G>C	p.E453Q
650	PIK3CA	c.1625A>T	p.E542V
651	PIK3CA	c.311C>T	p.P104L
652	PIK3CA	c.2908G>A	p.E970K
653	PIK3CA	c.3132T>G	p.N1044K
654	PIK3CA	c.1639G>A	p.E547K
655	PIK3CA	c.316G>C	p.G106R
656	PIK3CA	c.3129G>C	p.M1043I
657	PIK3CA	c.1034A>T	p.N345I
658	PIK3CB	c.3151G>A	p.E1051K
659	PIK3CB	c.3200A>T	p.D1067V
660	PIK3CB	c.962G>A	p.R321Q
661	PIK3CB	c.1408G>A	p.E470K
662	PIK3CB	c.1654G>A	p.E552K
663	PIK3CD	c.1558T>G	p.S520A
664	PIK3CD	c.3061G>A	p.E1021K
665	PIK3CD	c.2503G>A	p.A835T
666	PIK3CD	c.113G>A	p.R38H
667	PIK3CD	c.262C>T	p.R88C
668	PIK3CG	c.2569A>G	p.T857A
669	PIK3CG	c.1565A>G	p.N522S
670	PIK3CG	c.1325C>A	p.S442Y

No	Gene	CDS	AA
671	PIK3CG	c.493G>A	p.V165I
672	PIK3CG	c.2275G>A	p.V759I
673	PIK3CG	c.799G>A	p.E267K
674	PIK3RI	c.1690A>G	p.N564D
675	PIK3RI	c.978G>A	p.M326I
676	PIK3RI	c.1042C>T	p.R348X
677	PIK3RI	c.1699A>G	p.K567E
678	PIK3RI	c.1126G>A	p.G376R
679	PIK3RI	c.1381C>T	p.R461X
680	PIK3RI	c.1924C>T	p.R642X
681	PIK3RI	c.1072C>T	p.R358X
682	PIK3R2	c.937T>C	p.S313P
683	PIK3R2	c.1117G>A	p.G373R
684	PIK3R2	c.1669G>T	p.D557Y
685	PMS2	c.1866G>A	p.M622I
686	PMS2	c.1531A>G	p.T511A
687	PMS2	c.1789A>T	p.T597S
688	PMS2	c.2570G>C	p.G857A
689	POLE	c.857C>G	p.P286R
690	POLE	c.1231G>T	p.V411L
691	POLE	c.1231G>C	p.V411L
692	PPP2R1A	c.547C>T	p.R183W
693	PPP2R1A	c.536C>G	p.P179R
694	PPP2R1A	c.767C>T	p.S256F
695	PPP2R1A	c.548G>P	p.R183Q
696	PPP2R1A	c.544C>T	p.R182W
697	PTEN	c.389G>A	p.R130Q
698	PTEN	c.388C>G	p.R130G
699	PTEN	c.955_958del	p.T319X
700	PTEN	c.697C>T	p.R233X
701	PTEN	c.388C>T	p.R130X
702	PTEN	c.800del	p.K267RfsX9
703	PTEN	c.968del	p.N323MfsX21
704	PTEN	c.517C>T	p.R173C
705	PTEN	c.518G>A	p.R173H
706	PTEN	c.1003C>T	p.R335X
707	PTEN	c.511C>T	p.Q171X
708	PTEN	c.733C>T	p.Q245X
709	PTEN	c.19G>T	p.E7X
710	PTEN	c.389G>T	p.R130L
711	PTEN	c.640C>T	p.Q214X
712	PTEN	c.406T>C	p.C136R
713	PTEN	c.49C>T	p.Q17X
714	PTEN	c.892C>T	p.Q298X
715	PTEN	c.278A>G	p.H93R
716	PTEN	c.395G>A	p.G132D
717	PTEN	c.895G>T	p.E299X
718	PTEN	c.202T>C	p.Y68H
719	PTEN	c.112C>T	p.P38S
720	PTEN	c.376G>A	p.A126T
721	PTEN	c.424C>T	p.R142W
722	PTEN	c.182A>G	p.H61R
723	PTEN	c.385G>A	p.G129R
724	PTEN	c.389G>C	p.R130P
725	PTEN	c.686C>G	p.S229X
726	PTEN	c.834C>G	p.F278L
727	PTEN	c.407G>A	p.C136Y
728	PTEN	c.493G>A	p.G165R
729	PTEN	c.737C>T	p.P246L
730	PTEN	c.302T>C	p.I101T
731	PTEN	c.464A>G	p.Y155C
732	PTEN	c.276C>A	p.D92E
733	PTEN	c.386G>A	p.G129E
734	PTEN	c.1021T>G	p.F341V
735	PTEN	c.103A>G	p.M35V
736	PTEN	c.106G>A	p.G36R
737	PTEN	c.367C>T	p.H123Y

No	Gene	CDS	AA
738	PTEN	c.370T>A	p.C124S
739	PTEN	c.380G>A	p.G127E
740	PTEN	c.376G>T	p.A126S
741	PTEN	c.380G>T	p.G127V
742	PTEN	c.445C>T	p.Q149X
743	PTEN	c.477G>T	p.R159S
744	PTEN	c.494G>A	p.G165E
745	PTPN11	c.226G>A	p.E76K
746	PTPN11	c.215C>T	p.A72V
747	PTPN11	c.214G>A	p.A72T
748	PTPN11	c.181G>T	p.D61Y
749	PTPN11	c.182A>T	p.D61V
750	PTPN11	c.179G>T	p.G60V
751	PTPN11	c.205G>A	p.E69K
752	RAC1	c.85C>T	p.P29S
753	RAC1	c.533C>T	p.A178V
754	RAC1	c.86C>T	p.P29L
755	RAF1	c.770C>T	p.S257L
756	RAF1	c.776C>T	p.S259F
757	RBI	c.1735C>T	p.R579X
758	RBI	c.751C>T	p.R251X
759	RBI	c.958C>T	p.R320X
760	RBI	c.1363C>T	p.R455X
761	RBI	c.1654C>T	p.R552X
762	RBI	c.1666C>T	p.R556X
763	RBI	c.1072C>T	p.R358X
764	RBI	c.2359C>T	p.R787X
765	RBI	c.1333C>T	p.R445X
766	RET	c.2753T>C	p.M918T
767	RET	c.135A>G	p.A45=
768	RET	c.2307G>T	p.L769=
769	RHOA	c.50G>T	p.G17V
770	RHOA	c.50G>A	p.G17E
771	RHOA	c.125A>G	p.Y42C
772	RHOA	c.14G>A	p.R5Q
773	RHOA	c.46T>C	p.C16R
774	RHOA	c.139G>A	p.E47K
775	RHOA	c.13C>T	p.R5W
776	RHOA	c.185G>A	p.G62E
777	RHOA	c.482C>T	p.A161V
778	RNF43	c.433C>T	p.R145X
779	ROS1	c.433A>C	p.T145P
780	ROS1	c.6637G>A	p.D2213N
781	ROS1	c.6686C>G	p.S2229C
782	ROS1	c.6682A>C	p.K2228Q
783	ROS1	c.500G>A	p.R167Q
784	RXRA	c.1280C>T	p.S427F
785	RXRA	c.1280C>A	p.S427Y
786	SF3B1	c.2098A>G	p.K700E
787	SF3B1	c.1874G>A	p.R625H
788	SF3B1	c.1873C>T	p.R625C
789	SF3B1	c.2225G>A	p.G742D
790	SF3B1	c.1998G>C	p.K666N
791	SF3B1	c.1997A>C	p.K666T
792	SMAD2	c.1391C>G	p.S464X
793	SMAD2	c.544C>T	p.R182X
794	SMAD4	c.1082G>A	p.R361H
795	SMAD4	c.1081C>T	p.R361C
796	SMAD4	c.1333C>T	p.R445X
797	SMAD4	c.353C>T	p.A118V
798	SMAD4	c.403C>T	p.R135X
799	SMAD4	c.1051G>C	p.D351H
800	SMAD4	c.1157G>A	p.G386D
801	SMAD4	c.1067C>T	p.P356L
802	SMAD4	c.988G>A	p.E330K
803	SMAD4	c.1487G>A	p.R496H
804	SMARCA4	c.2729C>T	p.T910M

OTS-Numbers: OTS-1000ex

No	Gene	CDS	AA
805	SMARCA4	c.372C>T	p.R1243W
806	SMARCA4	c.3575G>A	p.R1192H
807	SMARCA4	c.3694G>A	p.G1232S
808	SMARCA4	c.3574C>T	p.R1192C
809	SMARCA4	c.2461G>A	p.E821K
810	SMARCA4	c.3566G>A	p.R1189Q
811	SMARCA4	c.3469C>T	p.R1157W
812	SMARCA4	c.2653C>T	p.R885C
813	SMARCA4	c.2758G>A	p.E920K
814	SMARCA4	c.2738C>T	p.P913L
815	SMARCA4	c.3403C>T	p.R1135W
816	SPOP	c.399C>G	p.F133L
817	SPOP	c.397T>G	p.F133V
818	SPOP	c.305T>G	p.F102C
819	SPOP	c.391T>G	p.W131G
820	SPOP	c.260A>G	p.Y87C
821	SPOP	c.399C>A	p.F133L
822	SPOP	c.304T>G	p.F102V
823	SPOP	c.349A>G	p.M117V
824	SPOP	c.398T>C	p.F133S
825	SPOP	c.232G>A	p.E78K
826	SPOP	c.259T>A	p.Y87N
827	SPOP	c.398T>G	p.F133C
828	SPOP	c.393G>C	p.W131C
829	SPOP	c.362G>A	p.R121Q
830	SPOP	c.388G>C	p.D130H
831	SRSF2	c.284C>A	p.P95H
832	SRSF2	c.284C>T	p.P95L
833	STAG2	c.646C>T	p.R216X
834	STAG2	c.775C>T	p.R259X
835	STAG2	c.3034C>T	p.R1012X
836	STAT3	c.1919A>T	p.Y640F
837	STAT3	c.1981G>T	p.D661Y
838	STAT3	c.1852G>C	p.G618R
839	STAT3	c.1940A>T	p.N647I
840	STK11	c.1062C>G	p.F354L
841	STK11	c.109C>T	p.Q37X
842	STK11	c.580G>T	p.D194Y
843	STK11	c.647C>T	p.S216F
844	STK11	c.667G>T	p.E223X
845	TERT _p	C228T	NA
846	TERT _p	C250T	NA
847	TET2	c.1648C>T	p.R550X
848	TET2	c.4393C>T	p.R1465X
849	TP53	c.524G>A	p.R175H
850	TP53	c.743G>A	p.R248Q
851	TP53	c.818G>A	p.R273H
852	TP53	c.817C>T	p.R273C
853	TP53	c.742C>T	p.R248W
854	TP53	c.844C>T	p.R282W
855	TP53	c.637C>T	p.R213X
856	TP53	c.733G>A	p.G245S
857	TP53	c.747G>T	p.R249S
858	TP53	c.659A>G	p.Y220C
859	TP53	c.586C>T	p.R196X
860	TP53	c.469G>T	p.V157F
861	TP53	c.536A>G	p.H179R
862	TP53	c.488A>G	p.Y163C
863	TP53	c.527G>T	p.C176F
864	TP53	c.818G>T	p.R273L
865	TP53	c.853G>A	p.E285K
866	TP53	c.734G>A	p.G245D
867	TP53	c.722C>T	p.S241F
868	TP53	c.578A>G	p.H193R
869	TP53	c.535C>T	p.H179Y
870	TP53	c.856G>A	p.E286K
871	TP53	c.584T>C	p.I195T

No	Gene	CDS	AA
872	TP53	c.574C>T	p.Q192X
873	TP53	c.701A>G	p.Y234C
874	TP53	c.814G>A	p.V272M
875	TP53	c.711G>A	p.M237I
876	TP53	c.713G>A	p.C238Y
877	TP53	c.743G>T	p.R248L
878	TP53	c.473G>A	p.R158H
879	TP53	c.646G>A	p.V216M
880	TP53	c.832C>T	p.P278S
881	TP53	c.422G>A	p.C141Y
882	TP53	c.527G>A	p.C176Y
883	TP53	c.455C>T	p.P152L
884	TP53	c.473G>T	p.R158L
885	TP53	c.725G>T	p.C242F
886	TP53	c.833C>T	p.P278L
887	TP53	c.614A>G	p.Y205C
888	TP53	c.641A>G	p.H214R
889	TP53	c.734G>T	p.G245V
890	TP53	c.451C>T	p.P151S
891	TP53	c.797G>A	p.G266E
892	TP53	c.839G>A	p.R280K
893	TP53	c.839G>C	p.R280T
894	TP53	c.707A>G	p.Y236C
895	TP53	c.733G>T	p.G245C
896	TP53	c.517G>T	p.V173L
897	TP53	c.404G>A	p.C135Y
898	TP53	c.581T>G	p.L194R
899	TP53	c.796G>A	p.G266R
900	TP53	c.517G>A	p.V173M
901	TP53	c.380C>T	p.S127F
902	TP53	c.395A>G	p.K132R
903	TP53	c.824G>A	p.C275Y
904	TP53	c.404G>T	p.C135F
905	TP53	c.730G>T	p.G244C
906	TP53	c.577C>T	p.H193Y
907	TP53	c.638G>T	p.R213L
908	TP53	c.749C>T	p.P250L
909	TP53	c.772G>A	p.E258K
910	TP53	c.578A>T	p.H193L
911	TP53	c.824G>T	p.C275F
912	TP53	c.736A>G	p.M246V
913	TP53	c.797G>T	p.G266V
914	TP53	c.476C>T	p.A159V
915	TP53	c.725G>A	p.C242Y
916	TP53	c.461G>T	p.G154V
917	TP53	c.481G>A	p.A161T
918	TP53	c.731G>A	p.G244D
919	TP53	c.638G>A	p.R213Q
920	TP53	c.713G>T	p.C238F
921	TP53	c.715A>G	p.N239D
922	TP53	c.406C>T	p.Q136X
923	TP53	c.493C>T	p.Q165X
924	TP53	c.536A>T	p.H179L
925	TP53	c.811G>A	p.E271K
926	TP53	c.437G>A	p.W146X
927	TP53	c.438G>A	p.W146X
928	TP53	c.592G>T	p.E198X
929	TP53	c.430C>T	p.Q144X
930	TP53	c.711G>T	p.M237I
931	TP53	c.730G>A	p.G244S
932	TP53	c.746G>T	p.R249M
933	TP53	c.610G>T	p.E204X
934	TP53	c.722C>G	p.S241C
935	TP53	c.329G>T	p.R110L
936	TP53	c.745A>T	p.R249W
937	TP53	c.814G>T	p.V272L
938	TP53	c.841G>C	p.D281H


No	Gene	CDS	AA
939	TP53	c.396G>T	p.K132N
940	TP53	c.836G>A	p.G279E
941	TP53	c.838A>G	p.R280G
942	TP53	c.799C>T	p.R267W
943	TP53	c.830G>T	p.C277F
944	TP53	c.583A>T	p.I195F
945	TP53	c.832C>A	p.P278T
946	TP53	c.844C>G	p.R282G
947	TP53	c.452C>A	p.P151H
948	TP53	c.548C>G	p.S183X
949	TP53	c.569C>T	p.P190L
950	TP53	c.833C>G	p.P278R
951	TP53	c.396G>C	p.K132N
952	TP53	c.475G>C	p.A159P
953	TP53	c.499C>T	p.Q167X
954	TP53	c.427G>A	p.V143M
955	TP53	c.644G>T	p.S215I
956	TP53	c.775G>T	p.D259Y
957	TP53	c.700T>C	p.Y234H
958	TP53	c.716A>G	p.N239S
959	TP53	c.745A>G	p.R249G
960	TP53	c.841G>A	p.D281N
961	TP53	c.298C>T	p.Q100X
962	TP53	c.310C>T	p.Q104X
963	TP53	c.820G>T	p.V274F
964	TP53	c.763A>T	p.I255F
965	TP53	c.821T>C	p.V274A
966	TP53	c.464C>A	p.T155N
967	TP53	c.467G>C	p.R156P
968	TP53	c.542G>A	p.R181H
969	TP53	c.580C>T	p.L194F
970	TP53	c.746G>C	p.R249T
971	TP53	c.818G>C	p.R273P
972	TP53	c.845G>A	p.R282Q
973	TP53	c.772G>T	p.E258X
974	TP53	c.405C>G	p.C135W
975	TP53	c.541C>T	p.R181C
976	TP53	c.832C>G	p.R278A
977	TP53	c.856G>T	p.E286X
978	TP53	c.329G>C	p.R110P
979	TP53	c.514G>T	p.V172F
980	TP53	c.584T>A	p.I195N
981	TP53	c.511G>T	p.E171X
982	TP53	c.811G>T	p.E271X
983	TP53	c.523C>G	p.R175G
984	TP53	c.747G>C	p.R249S
985	TP53	c.375G>T	p.T125T
986	TP53	c.394A>G	p.K132E
987	TP53	c.487T>A	p.Y163N
988	TP53	c.800G>C	p.R267P
989	TP53	c.853G>T	p.E285X
990	TP53	c.738G>A	p.M246I
991	TP53	c.742C>G	p.R248G
992	TP53	c.785G>T	p.G262V
993	TP53	c.859G>T	p.E287X
994	TP53	c.454C>T	p.P152S
995	TP53	c.487T>C	p.Y163H
996	TP53	c.524G>T	p.R175L
997	TP53	c.725G>C	p.C242S
998	TP53	c.794T>C	p.L265P
999	TP53	c.839G>T	p.R280I
1000	TP53	c.848G>C	p.R283P
1001	TP53	c.375G>A	p.T125T
1002	TP53	c.388C>G	p.L130V
1003	TP53	c.528C>G	p.C176W
1004	TP53	c.535C>A	p.H179N
1005	TP53	c.596G>T	p.G199V

OTS-Numbers: OTS-1000ex

No	Gene	CDS	AA
1006	TP53	c.643A>G	p.S215G
1007	TP53	c.722C>A	p.S241Y
1008	TP53	c.796G>T	p.G266X
1009	TP53	c.374C>T	p.T125M
1010	TP53	c.377A>G	p.Y126C
1011	TP53	c.517G>C	p.V173L
1012	TP53	c.523C>T	p.R175C
1013	TP53	c.530C>T	p.P177L
1014	TP53	c.817C>A	p.R273S
1015	TP53	c.434T>A	p.L145Q
1016	TP53	c.463A>C	p.T155P
1017	TP53	c.503A>G	p.H168R
1018	TP53	c.535C>G	p.H179D
1019	TP53	c.658T>A	p.Y220N
1020	TP53	c.700T>A	p.Y234N
1021	TP53	c.743G>C	p.R248P
1022	TP53	c.843C>G	p.D281E
1023	TP53	c.380C>A	p.S127Y
1024	TP53	c.472C>T	p.R158C
1025	TP53	c.400T>C	p.F134L
1026	TP53	c.412G>C	p.A138P
1027	TP53	c.421T>C	p.C141R
1028	TP53	c.473G>C	p.R158P
1029	TP53	c.587G>C	p.R196P
1030	TP53	c.706T>A	p.Y236N
1031	TP53	c.526T>C	p.C176R
1032	TP53	c.526T>A	p.C176S
1033	TP53	c.537T>A	p.H179Q
1034	TP53	c.542G>C	p.R181P
1035	TP53	c.659A>C	p.Y220S
1036	TP53	c.731G>T	p.G244V
1037	TP53	c.733G>C	p.G245R
1038	TP53	c.843C>A	p.D281E
1039	TP53	c.845G>C	p.R282P
1040	TP53	c.857A>G	p.E286G
1041	TP53	c.661G>T	p.E221X
1042	TP53	c.434T>C	p.L145P
1043	TP53	c.451C>G	p.P151A
1044	TP53	c.490A>G	p.K164E
1045	TP53	c.613T>G	p.Y205D
1046	TP53	c.718A>G	p.S240G
1047	TP53	c.809T>C	p.F270S
1048	TP53	c.808T>C	p.F270L
1049	TP53	c.313G>T	p.G105C
1050	TP53	c.388C>T	p.L130F
1051	TP53	c.559G>A	p.G187S
1052	TP53	c.623A>T	p.D208V
1053	TP53	c.645T>G	p.S215R
1054	TP53	c.658T>C	p.Y220H
1055	TP53	c.796G>C	p.G266R
1056	TP53	c.809T>G	p.F270C
1057	TP53	c.823T>C	p.C275R
1058	TP53	c.840A>T	p.R280S
1059	TP53	c.841G>T	p.D281Y
1060	TP53	c.847C>T	p.R283C
1061	TP53	c.854A>T	p.E285V
1062	TP53	c.328C>T	p.R110C
1063	TP53	c.423C>G	p.C141W
1064	TP53	c.451C>A	p.P151T
1065	TP53	c.472C>G	p.R158G
1066	TP53	c.518T>C	p.V173A
1067	TP53	c.596G>A	p.G199E
1068	TP53	c.755T>C	p.L252P
1069	TP53	c.830G>A	p.C277Y
1070	TP53	c.833C>A	p.P278H
1071	TP53	c.842A>G	p.D281G
1072	TP53	c.497C>G	p.S166X

No	Gene	CDS	AA
1073	TP53	c.395A>T	p.K132M
1074	TP53	c.470T>G	p.V157G
1075	TP53	c.530C>G	p.P177R
1076	TP53	c.578A>C	p.H193P
1077	TP53	c.632C>T	p.T211I
1078	TP53	c.712T>C	p.C238R
1079	TP53	c.916C>T	p.R306X
1080	TP53	c.1024C>T	p.R342X
1081	VHL	c.481C>T	p.R161X
1082	VHL	c.266T>A	p.L89H
1083	VHL	c.194C>A	p.S65X
1084	VHL	c.203C>A	p.S68X
1085	VHL	c.472C>G	p.L158V
1086	VHL	c.194C>T	p.S65L
1087	VHL	c.484T>C	p.C162R
1088	VHL	c.241C>T	p.P81S
1089	VHL	c.343C>A	p.H115N
1090	VHL	c.343C>T	p.H115Y
1091	VHL	c.506T>C	p.L169P
1092	VHL	c.388G>C	p.V130L
1093	VHL	c.240T>A	p.S80R
1094	VHL	c.233A>G	p.N78S
1095	VHL	c.239G>A	p.S80N
1096	VHL	c.221T>A	p.V74D
1097	VHL	c.263G>A	p.W88X
1098	VHL	c.286C>T	p.Q96X
1099	VHL	c.217C>T	p.Q73X
1100	VHL	c.499C>T	p.R167W
1101	VHL	c.263G>T	p.W88L
1102	VHL	c.353T>C	p.L118P
1103	VHL	c.361G>T	p.D121Y
1104	VHL	c.208G>T	p.E70X
1105	VHL	c.266T>C	p.L89P
1106	VHL	c.269A>T	p.N90I
1107	VHL	c.332G>A	p.S111N
1108	VHL	c.333C>A	p.S111R
1109	VHL	c.452T>C	p.I151T
1110	VHL	c.458T>C	p.L153P
1111	VHL	c.525C>A	p.Y175X
1112	VHL	c.256C>T	p.P86S
1113	VHL	c.383T>C	p.L128P
1114	VHL	c.473T>A	p.L158Q
1115	VHL	c.473T>C	p.L158P
1116	VHL	c.490C>T	p.Q164X
1117	VHL	c.551T>C	p.L184P
1118	VHL	c.341G>C	p.G114A
1119	VHL	c.350G>A	p.W117X
1120	WT1	c.1142C>A	p.S381X
1121	WT1	c.1384C>T	p.R462W
1122	WT1	c.1372C>T	p.R458X
1123	WT1	c.1105C>T	p.R369X
1124	WT1	c.1385G>A	p.R462Q
1125	WT1	c.1107A>G	p.R369=
1126	WT1	c.594C>T	p.N198=
1127	XPO1	c.1711G>A	p.E571K
1128	XPO1	c.2246G>A	p.R749Q

OTS-Probes

	容器単位 : 0.5mL 自立型オリングレスルーブスクリューキャップチューブ 使用方法 : DNase/RNase-free distilled water を 15µL 入れ、チューブの底部 および壁部に付着しているプライマー・プローブ混合物を溶解 *"OTS-Probes_Manual_IP_221229"参照 使用期限 : 溶解後 1 年以内 保存方法 : 未開封 (乾燥品) : -20°C 保存 開封溶解後 : -20°C 保存						
	解析回数/チューブ :	<table border="1"> <tr> <td>Bio-Rad QX200</td> <td>約6アッセイ分</td> </tr> <tr> <td>ThermoFisher QuantStudio 3D</td> <td>約8アッセイ分</td> </tr> <tr> <td>ThermoFisher QuantStudio Absolute Q</td> <td>約12アッセイ分</td> </tr> </table>	Bio-Rad QX200	約6アッセイ分	ThermoFisher QuantStudio 3D	約8アッセイ分	ThermoFisher QuantStudio Absolute Q
Bio-Rad QX200	約6アッセイ分						
ThermoFisher QuantStudio 3D	約8アッセイ分						
ThermoFisher QuantStudio Absolute Q	約12アッセイ分						

* [OTS-Probes] は、岩手医科大学医薬研究開発研究所が開発し特許化した技術の移転を受け、株式会社クオントディテクトが開発・製造したものです。