

Genotype	Cell line	Sequenom BRAF	Sequenom NRAS
BRAF (other)	SK-Mel-208	G466E	WT
BRAF (other)	SK-Mel-246	G469A	WT
BRAF V600E	SK-Mel-5	V600E	WT
BRAF V600E	SK-Mel-131	V600E	WT
BRAF V600E	SK-Mel-174	V600E	WT
BRAF V600E	SK-Mel-233	V600E	WT
BRAF V600E	SK-Mel-237	V600E	WT
BRAF V600E	SK-Mel-252	V600E	WT
BRAF V600E	SK-Mel-282	V600E	WT
BRAF V600E	SK-Mel-306	V600E	WT
BRAF V600E	SK-Mel-330	V600E	WT
BRAF V600E	SK-Mel-334	V600E	WT
BRAF V600E	SK-Mel-339	V600E	WT
BRAF V600E	SK-Mel-359	V600E	WT
BRAF V600E	SK-Mel-364	V600E	WT
BRAF V600E	SK-Mel-390	V600E	WT
BRAF V600E	Sk-Mel-413-2	V600E	WT
BRAF V600E	SK-Mel-426	V600E	WT
BRAF V600E	SK-Mel-447	V600E	WT
BRAF V600E	SK-Mel-462	V600E	WT
BRAF V600E	SK-Mel-479	V600E	WT
BRAF V600E	SK-Mel-495	V600E	WT
BRAF V600E	SK-Mel-498	V600E	WT
BRAF V600E	SK-Mel-506	V600E	WT
BRAF V600E	SK-Mel-507	V600E	WT
BRAF V600E	SK-Mel-529	V600E	WT
BRAF V600E	Sk-Mel-457	V600E	WT
BRAF V600E	SK-Mel-483	V600E	WT
BRAF V600E	SK-Mel-513	V600E	WT
BRAF V600E	SK-Mel-1	V600E	WT
BRAF V600E	SK-Mel-7	V600E	WT
BRAF V600E	SK-Mel-11	V600E	WT
BRAF V600E	SK-Mel-12	V600E	WT
BRAF V600E	SK-Mel-13	V600E	WT
BRAF V600E	SK-Mel-19	V600E	WT
BRAF V600E	SK-Mel-22	V600E	WT
BRAF V600E	SK-Mel-26	V600E	WT
BRAF V600E	SK-Mel-27	V600E	WT
BRAF V600E	SK-Mel-28	V600E	WT
BRAF V600E	SK-Mel-29	V600E	WT
BRAF V600E	SK-Mel-32	V600E	WT
BRAF V600E	SK-Mel-37	V600E	WT
BRAF V600E	SK-Mel-39	V600E	WT
BRAF V600E	SK-Mel-40	V600E	WT
BRAF V600E	SK-Mel-41	V600E	WT
BRAF V600E	SK-Mel-73	V600E	WT
BRAF V600E	SK-Mel-100	V600E	WT
BRAF V600E	SK-Mel-105	V600E	WT
BRAF V600E	SK-Mel-133	V600E	WT
BRAF V600E	SK-Mel-170	V600E	WT
BRAF V600E	SK-Mel-178	V600E	WT
BRAF V600E	SK-Mel-181	V600E	WT
BRAF V600E	SK-Mel-188	V600E	WT
BRAF V600E	SK-Mel-190	V600E	WT
BRAF V600E	SK-Mel-192	V600E	WT
BRAF V600E	SK-Mel-196	V600E	WT
BRAF V600E	SK-Mel-197	V600E	WT
BRAF V600E	SK-Mel-200	V600E	WT
BRAF V600E	SK-Mel-202	V600E	WT
BRAF V600E	SK-Mel-207	V600E	WT
BRAF V600E	SK-Mel-222	V600E	WT
BRAF V600E	SK-Mel-227	V600E	WT
BRAF V600E	SK-Mel-228	V600E	WT
BRAF V600E	SK-Mel-230	V600E	WT
BRAF V600E	SK-Mel-232	V600E	WT
BRAF V600E	SK-Mel-238	V600E	WT
BRAF V600E	SK-Mel-239	V600E	WT
BRAF V600E	SK-Mel-243	V600E	WT
BRAF V600E	SK-Mel-244	V600E	WT
BRAF V600E	SK-Mel-256	V600E	WT
BRAF V600E	SK-Mel-267	V600E	WT
BRAF V600E	SK-Mel-268	V600E	WT
BRAF V600E	SK-Mel-269	V600E	WT
BRAF V600E	SK-Mel-271	V600E	WT
BRAF V600E	SK-Mel-272	V600E	WT
BRAF V600E	SK-Mel-275	V600E	WT
BRAF V600E	SK-Mel-276	V600E	WT
BRAF V600E	SK-Mel-279	V600E	WT
BRAF V600E	SK-Mel-283	V600E	WT
BRAF V600E	SK-Mel-284	V600E	WT
BRAF V600E	SK-Mel-441	V600E	WT
BRAF V600E	A2058	V600E	WT
BRAF V600E	A375	V600E	WT
BRAF V600E	Malme3M	V600E	WT
BRAF V600E	WM88	V600E	WT
BRAF V600E	SK-Mel-15	V600E	WT
BRAF V600E	SK-Mel-279	V600E	WT
BRAF V600E	WM793	V600E	WT
BRAF and NRAS	SK-Mel-209	V600E	Q61K
BRAF (nonV600E) and NRAS	SK-Mel-85	G469S	Q61R
BRAF V600K	SK-Mel-64	V600K	WT
BRAF V600K	SK-Mel-153	V600K	WT

Supplemental Table S1 Cont.

Genotype	Cell line	Sequenom BRAF	Sequenom NRAS
NRAS Q61K	SK-Mel-307	WT	Q61K
NRAS Q61K	SK-Mel-410	WT	Q61K
NRAS Q61K	SK-Mel-455	WT	Q61K
NRAS Q61K	SK-Mel-21	WT	Q61K
NRAS Q61K	SK-Mel-30	WT	Q61K
NRAS Q61K	SK-Mel-90	WT	Q61K
NRAS Q61K	SK-Mel-109	WT	Q61K
NRAS Q61K	SK-Mel-117	WT	Q61K
NRAS Q61K	SK-Mel-173	WT	Q61K
NRAS Q61K	SK-Mel-186	WT	Q61K
NRAS Q61K	SK-Mel-229	WT	Q61K
NRAS Q61L	SK-Mel-321A	WT	Q61L
NRAS Q61L	SK-Mel-369	WT	Q61L
NRAS Q61L	SK-Mel-127	WT	Q61L
NRAS Q61R	SK-Mel-301	WT	Q61R
NRAS Q61R	SK-Mel-325	WT	Q61R
NRAS Q61R	SK-Mel-367	WT	Q61R
NRAS Q61R	SK-Mel-394	WT	Q61R
NRAS Q61R	SK-Mel-534A	WT	Q61R
NRAS Q61R	SK-Mel-538	WT	Q61R
NRAS Q61R	SK-Mel-2	WT	Q61R
NRAS Q61R	SK-Mel-103	WT	Q61R
NRAS Q61R	SK-Mel-119	WT	Q61R
NRAS Q61R	SK-Mel-130	WT	Q61R
NRAS Q61R	SK-Mel-147	WT	Q61R
NRAS Q61R	SK-Mel-182	WT	Q61R
NRAS Q61R	SK-Mel-191	WT	Q61R
NRAS Q61R	SK-Mel-199	WT	Q61R
NRAS Q61R	SK-Mel-205	WT	Q61R
NRAS Q61R	SK-Mel-210	WT	Q61R
NRAS Q61R	SK-Mel-234	WT	Q61R
WT	SK-Mel-464b	WT	WT
WT	SK-Mel-444	WT	WT
WT	SK-Mel-304	WT	WT
WT	SK-Mel-309	WT	WT
WT	SK-Mel-316	WT	WT
WT	SK-Mel-318	WT	WT
WT	SK-Mel-321B	WT	WT
WT	SK-Mel-323	WT	WT
WT	SK-Mel-326	WT	WT
WT	SK-Mel-332	WT	WT
WT	SK-Mel-346	WT	WT
WT	SK-Mel-351	WT	WT
WT	SK-Mel-366	WT	WT
WT	SK-Mel-380	WT	WT
WT	SK-Mel-381	WT	WT
WT	SK-Mel-391	WT	WT
WT	SK-Mel-393	WT	WT
WT	SK-Mel-398	WT	WT
WT	SK-Mel-400	WT	WT
WT	SK-Mel-406	WT	WT
WT	SK-Mel-408	WT	WT
WT	SK-Mel-412Parotid	WT	WT
WT	SK-Mel-423A	WT	WT
WT	SK-Mel-423B	WT	WT
WT	SK-Mel-427	WT	WT
WT	SK-Mel-428	WT	WT
WT	SK-Mel-430	WT	WT
WT	SK-Mel-431	WT	WT
WT	SK-Mel-432	WT	WT
WT	SK-Mel-435	WT	WT
WT	SK-Mel-445	WT	WT
WT	SK-Mel-451	WT	WT
WT	SK-Mel-452	WT	WT
WT	SK-Mel-464a	WT	WT
WT	SK-Mel-481	WT	WT
WT	SK-Mel-509	WT	WT
WT	SK-Mel-524	WT	WT
WT	SK-Mel-24	WT	WT
WT	SK-Mel-31	WT	WT
WT	SK-Mel-35	WT	WT
WT	SK-Mel-36	WT	WT
WT	SK-Mel-75	WT	WT
WT	SK-Mel-110	WT	WT
WT	SK-Mel-113	WT	WT
WT	SK-Mel-118	WT	WT
WT	SK-Mel-146	WT	WT
WT	SK-Mel-161	WT	WT
WT	SK-Mel-176	WT	WT
WT	SK-Mel-187	WT	WT
WT	SK-Mel-215	WT	WT
WT	SK-Mel-217	WT	WT
WT	SK-Mel-264	WT	WT
WT	SK-Mel-265	WT	WT
WT	SK-Mel-266	WT	WT
WT	SK-Mel-285	WT	WT
WT	SK-Mel-315-05	WT	WT
WT	SK-Mel-446	WT	WT
WT	SK-Mel-459	WT	WT
WT	SK-Mel-313	WT	WT
WT	SK-Mel-315-02	WT	WT
WT	SK-Mel-411	WT	WT
WT	SK-Mel-439	WT	WT
WT	SK-Mel-23	WT - Amp	WT
WT	MeWo	WT	WT
WT	WM1361	WT	WT
WT	WM1382	WT	WT

Supplemental Table S2.1

MAPK pathway alterations identified in the cohort WT for BRAF/NRAS by Sequenom

Cell line	Sequenom NRAS	Sequenom BRAF	Sanger mutations detected	IMPACT	244k or 1M Agilent CGH
SK-Mel-23	WT	WT	---	BRAF amplification	Broad 7q gain, BRAF amplification, PTEN deletion
SK-Mel-266	WT	WT	NF1 L161F	NF1 L161*, NF1 Q282*	Broad 7q gain
SK-Mel-113	WT	WT	---	NF1 homozygous deletion	Focal NF1 deletion
SK-Mel-217	WT	WT	---	KRAS amplification; focal intragenic NF1 deletion	KRAS amplification; focal NF1 deletion
MeWo	WT	WT	NF1 Q1336*	NF1 Q1336*, heterozygous NF1 deletion, p53 Q317* and E258K	Focal NF1 deletion
SK-Mel-118	WT	WT	KRAS G13R	KRAS amplification; KRAS G13R	KRAS gain
SK-Mel-285	WT	WT	KRAS G12C	---	
SK-Mel-110	WT	WT	KRAS E63K	---	
SK-Mel-146	WT	WT	HRAS Q61K	---	
SK-Mel-215	WT	WT	BRAF N581S	---	Broad 7q gain
SK-Mel-264	WT	WT	BRAF D594G	---	
WM1382	WT	WT	KIT N822K	---	KIT amplification, CDK4 amplification, ERBB3 gain
WM3211	WT	WT	KIT L576P	---	---
WM3918	---	---	---	Focal NF1 deletion	---

Supplemental Table S2.2

NF1 alterations identified in the BRAF/NRAS mutant cohort

Cell line	Sequenom NRAS	Sequenom BRAF	Sanger mutations detected	IMPACT	244k or 1M Agilent CGH
SK-Mel-103	Q61R	WT	---	NRAS Q61R, Focal NF1 deletion, TP53 deletion	Focal NF1 deletion
M308	WT	V600E	---	BRAF V600E, NF1 Q1070*	