

**Supplementary Table 3: A list of oncogenes and tumor suppressors used in the comparison of gene functional groups.** Compiled from the CancerGenes website (<http://cbio.mskcc.org/CancerGenes/Select.action>). Where a gene was listed as both an oncogene and tumor suppressor, a literature search was performed to determine the role of the specific gene in tumor development. Any genes whose role as an oncogene or tumor suppressor was still questionable were excluded from the final list.

Gene Symbol - Oncogenes			Gene Symbol – Tumor Suppressors		
ABL1	EVI1	MYC	APC	IL2	TNFAIP3
ABL2	EWSR1	MYCL1	ARHGEF12	JAK2	TP53
AKT1	FEV	MYCN	ATM	MAP2K4	TSC1
AKT2	FGFR1	NCOA4	BCL11B	MDM4	TSC2
ATF1	FGFR1OP	NFKB2	BLM	MEN1	VHL
BCL11A	FGFR2	NRAS	BMPR1A	MLH1	WRN
BCL2	FUS	NTRK1	BRCA1	MSH2	WT1
BCL3	GOLGA5	NUP214	BRCA2	NF1	
BCL6	GOPC	PAX8	CARS	NF2	
BCR	HMGA1	PDGFB	CBFA2T3	NOTCH1	
BRAF	HMGA2	PIK3CA	CDH1	NPM1	
CARD11	HRAS	PIM1	CDH11	NR4A3	
CBLB	IRF4	PLAG1	CDK6	NUP98	
CBLC	JUN	PPARG	CDKN2C	PALB2	
CCND1	KIT	PTPN11	CEBPA	PML	
CCND2	KRAS	RAF1	CHEK2	PTEN	
CCND3	LCK	REL	CREB1	RB1	
CDX2	LMO2	RET	CREBBP	RUNX1	
CTNNB1	MAF	ROS1	CYLD	SDHB	
DDB2	MAFB	SMO	DDX5	SDHD	
DDIT3	MAML2	SS18	EXT1	SMARCA4	
DDX6	MDM2	TCL1A	EXT2	SMARCB1	
DEK	MET	TET2	FBXW7	SOCS1	
EGFR	MITF	TFG	FH	STK11	
ELK4	MLL	TLX1	FLT3	SUFU	
ERBB2	MPL	TPR	FOXP1	SUZ12	
ETV4	MYB	USP6	GPC3	SYK	
ETV6			IDH1	TCF3	