



Advanta RNA Fusions NGS Library Prep Assay
3' Driver Genes and Associated Fusion Partners

Unique 3' genes	Number of 5' Partners	5' partners
ABI1	1	KMT2A
ABI2	1	KMT2A
ABL1	11	AES, ARHGEF18, BCR, BCRP3, CDC73, ETV6, FAM184B, FGFR4, FUBP3, NRXN2, NUP214
ACTN4	1	KMT2A
AES	1	FGFR3
AFF1	1	KMT2A
AFF3	1	KMT2A
AFF4	1	KMT2A
ALK	26	ACTG2, ATIC, C2orf44, CARS, CLTC, DCTN1, EML4, FN1, GTF2IRD1, HIP1, KCNQ5, KIF5B, KLC1, MSN, NPM1, PPF1BP1, RANBP2, SEC31A, SQSTM1, STPG4, STRN, TFG, TPM1, TPM3,
ARHGAP26	1	KMT2A
ARHGEF12	1	KMT2A
ASPSCR1	1	TFE3
ATF1	2	EWSR1, FUS
AXL	2	ACPP, SLC38A7
BAIAP2L1	1	FGFR3
BCL2	3	ATRX, DHRS12, NEDD4L
BCL6	3	BCL6, SAA2-SAA4, STAT5A
BCOR	1	ZC3H7B
BICC1	1	FGFR2
BRAF	29	AGK, AGTRAP, AKAP9, ATG7, BCL2L11, BRAF, C7orf73, CCNY, CEP89, CLCN6, FAM114A2, FAM131B, FCHSD1, GATM, GNAI1, HERPUD1, HIVADH, KDM7A, KIAA1549, LSM14A, MACF1, MKRN1, RNF130, SLC45A3, SND1, TMPRSS2, WDFY3, ZC3HAV1,
BTBD18	1	KMT2A
CASC5	1	KMT2A
CBL	1	KMT2A
CCAR2	1	FGFR2
CDX1	1	IRF2BP2
CREB1	1	EWSR1
CREB3L1	1	FUS
CREB3L2	1	FUS
CREBBP	1	KMT2A
CRTC1	1	MAML2
CTNNB1	1	PLAG1
DAB2IP	1	KMT2A

DAZL	1	RAF1
DDIT3	2	EWSR1, FUS
EGFR	1	EGFR
ELAVL3	1	FGFR3
ELK4	1	SLC45A3
ELL	1	KMT2A
EML4	1	EML4
EP300	1	KMT2A
EPS15	1	KMT2A
ERG	5	EWSR1, FUS, NDRG1, SLC45A3, TMPRSS2
ESRP1	1	RAF1
ETV1	6	ACSL3, EWSR1, HNRNPA2B1, KLK2, SLC45A3, TMPRSS2
ETV4	5	CANT1, DDX5, EWSR1, KLK2, TMPRSS2
ETV5	1	SLC45A3
ETV6	2	NTRK3, RUNX1
FAM22B	1	YWHAE
FEV	2	EWSR1, FUS
FGFR1	7	AKAP8L, BAG4, BCR, KAT6B, MTERF4, NSD3, RHOT1
FGFR2	3	CCAR2, KLK2, VCL
FGFR3	2	BBS10, CTBP1
FLI1	1	EWSR1
FOXO1	2	PAX3, PAX7
FOXO3	1	KMT2A
FOXO4	2	CIC, KMT2A
FRYL	1	KMT2A
FUS	1	FUS
GABBR2	1	NOTCH1
GAS7	1	KMT2A
GLI1	1	ACTB
GLIS2	1	CBFA2T3
GMPS	1	KMT2A
GPHN	1	KMT2A
HMGA2	1	LPP
IKZF1	3	CREB3L2, ENTPD1, IKZF1
ITPR2	1	ETV6
JAK2	6	BCR, ETV6, PAX5, PCM1, SEC31A, SSBP2
KIAA0284	1	KMT2A
KIAA1524	1	KMT2A
KIT	1	RCOR1
LASP1	1	KMT2A
LPP	2	HMGA2, KMT2A
MALT1	1	BIRC3
MAML2	2	CRTC1, CRTC3
MAPRE1	1	KMT2A
MECOM	1	RPN1
MET	6	CAPZA2, KIF5B, LAMA3, PTPRZ1, ST7, TFG
MLLT1	1	KMT2A

MLLT10	1	KMT2A
MLLT11	1	KMT2A
MLLT3	1	KMT2A
MLLT4	2	KMT2A
MLLT6	1	KMT2A
MYB	1	MYB
MYC	7	ACPP, CTTN, MYC, NDRG1, PVT1, TSPOAP1-AS1, UBC
MYO1F	1	KMT2A
NCKIPSD	1	KMT2A
NCOA1	1	PAX3
NCOA2	2	HEY1, PAX3
NFATC1	1	EWSR1
NFATC2	1	EWSR1
NFIB	1	MYB
NOTCH1	2	CD81, SEC16A
NOTCH2	6	ARID5B, ATP1A1, MAGI3, PTGFRN, SSR1, TMBIM6
NOTCH3	2	GSE1, PTP4A1
NOTCH4	1	CNNM2
NR4A3	4	EWSR1, TAF15, TCF12, TFG
NRG1	1	CD74
NTRK1	13	EPHB2, IRF2BP2, LMNA, MPRIP, NFASC, PRCC, RPL7A, SQSTM1, SSBP2, TFG, TP53, TPM3, TPM4
NTRK2	8	ABL1, AFAP1-AS1, AFAP1, NACC2, NTRK2, PAN3, QKI, TRIM24
NTRK3	6	AKAP13, ETV6, LYN, NTRK3, RBPMS, SPTAN1
NUP214	1	SET
NUTM1	2	BRD4, NSD3
OFD1	1	FGFR2
PATZ1	1	EWSR1
PAX3	1	FOXO1
PAX5	1	JAK2
PAX8	1	PAX8
PBX1	2	EWSR1, TCF3
PCM1	1	JAK2
PDGFB	1	COL1A1
PDGFRA	5	BCR, CLOCK, FIP1L1, GPC3, NCDN
PDGFRB	4	EBF1, LOC100130987, NIN, SYN1
PDS5A	1	KMT2A
PHF1	3	EPC1, JAZF1, MEAF6
PICALM	1	KMT2A
PLAG1	7	CHCHD7, COL1A2, CTNNB1, FGFR1, HAS2, LIFR, TCEA1
POU5F1	1	EWSR1
PPARG	1	PAX8
PRCC	1	TFE3
PRKACA	1	DNAJB1
RAF1	3	ESRP1, HACL1, SRGAP3
RARA	1	PML

RET	18	AFAP1, AKAP12, CCDC6, CUX1, ERC1, FKBP15, GOGLA5, HOOK3, KIF5B, KTN1, NCOA4, PCM1, PRKAR1A, SPECC1L, TBL1XR1,
RHEBL1	1	DHH
ROS1	17	CD74, CEP85L, CLIP1, CLTC, ERC1, EZR, GOPC, HLA-A, KIAA1598, LRIG3, MYO5A, PPFIBP1, PWWP2A, SDC4, SLC34A2, TPM3,
RPN1	1	MECOM
RSPO2	1	EIF3E
RSPO3	1	PTPRK
RUNX1	15	AKAP9, DGKG, DPP10, DYRK1A, ETV6, FBXO42, FUS, GSN, HUNK, NOL4L, RCAN1, RUNX1, RUNX1T1, STMN4, USP42
RUNX1T1	1	RUNX1
SARNP	1	KMT2A
SEPT2	1	KMT2A
SEPT5	1	KMT2A
SEPT6	1	KMT2A
SEPT9	1	KMT2A
SH3GL1	1	KMT2A
SMARCA5	1	EWSR1
SORBS2	1	KMT2A
SP3	1	EWSR1
SSX1	2	SS18L1, SS18
SSX2	1	SS18
SSX4	1	SS18
STAT6	1	NAB2
SUZ12	1	JAZF1
TACC1	1	FGFR1
TACC3	1	FGFR3
TAL1	1	STIL
TET1	1	KMT2A
TFE3	6	ASPSCR1, CLTC, NONO, PRCC, SFPQ, TFE3
TOP3A	1	KMT2A
USP6	2	CDH11, COL1A1
WDFY2	1	CDKN2D
WIF1	1	HMGA2
WT1	1	EWSR1
YY1	1	EWSR1
ZFYVE19	1	KMT2A
ZNF384	1	EWSR1
ZNF444	1	EWSR1
ZNF703	1	FGFR1

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