

Supplementary Table 1. Fusion candidates called by 9 methods from HCC1395 cell line.

Note: Coordinates are based on Genome Reference Consortium Human Build 37 (GRCh37).

Sp_gene	3p_gene	Validated	chr_Sp	fusion_juncti_chr_3p	fusion_juncti_Tier	Encompassin	Spanning RN.	INTEGRATE(C)	INTEGRATE(T)	INTEGRATE(S)	nFUSE	ChimeraScan	FusionCatcher	TopHat-Fusion	pyPRADA	TRUP	Comrad	BreakTrans	
EIF3K	CYP39A1	1	19	39123318	6	46607405	1	96	187	1	1	1	1	1	1	1	1	1	0
MDH1	RP11-357C3.3	1	2	63826426	X	62619783	1	23	25	1	1	1	0	0	0	1	0	0	0
LMF1	FOXK2	1	16	1020788	17	80559179	1	14	19	1	1	1	1	1	1	1	1	0	1
GS1-124K5.2	RP11-147C23.1	1	7	65915058	1	96471749	1	2	13	1	1	1	0	0	0	1	0	0	1
RNGTT	RP11	1	6	89559474	1	84946639	1	4	6	1	1	1	0	1	0	0	1	0	0
RP11-83A24	KCNQ5	1	4	146374839	6	73900296	1	2	2	1	0	0	0	0	0	0	0	0	0
PLA2R1	RBM51	1	2	160832579	2	161159998	1	117	189	1	1	1	1	1	1	1	0	1	1
RAB7A	LRCH3	1	3	128445202	3	197592294	1	34	46	1	1	1	1	1	1	1	0	1	1
SHISA5	RP11-24C3.2	1	3	48520586	3	48482272	1	36	36	1	1	0	0	0	0	0	0	0	0
UNC5C	STPG2	1	4	96199410	4	98162249	1	35	23	1	1	1	0	1	0	0	0	0	0
TMEM104	RAB37	1	17	72791771	17	72725395	1	29	16	1	1	1	1	1	1	1	0	0	1
MAVS	PANK2	1	20	3843060	20	3888573	1	22	16	1	1	0	0	0	0	0	0	0	0
ZNF378P	CEP164P1	1	10	43046005	10	45561970	1	16	17	1	1	1	1	1	0	0	0	0	0
POU2F1	NME7	1	1	167382351	1	169102055	1	16	10	1	1	1	1	1	0	0	0	0	0
NRL	DHRS4-AS1	1	14	24583931	14	24410367	1	14	11	0	1	0	0	0	0	0	0	0	0
KPNA1	EEFSEC	1	3	122168421	3	127965679	1	6	16	1	1	1	1	1	1	1	1	0	0
NOM1	MXN1-AS2	1	7	156756720	7	156799571	1	8	13	1	1	0	0	0	0	0	0	0	0
EFTUD2	KIF18B	1	17	42942298	17	43006392	1	11	9	1	1	0	1	1	1	0	0	0	0
OSBP19	RP11-191G24.1	1	1	52179751	1	52026554	1	8	9	1	1	1	0	0	0	0	0	0	0
MFSO3	MROH1	1	8	145736286	8	145254025	1	5	9	1	1	1	1	1	1	0	0	0	0
WARS	DEGS2	1	14	100826891	14	100616047	1	6	5	1	1	0	0	0	0	0	0	0	0
HNRNPU12	AHNAK	1	11	62484461	11	62201363	1	4	2	1	1	0	0	0	0	0	0	0	0
CCDC117	CTA-292E10.6	1	22	29179633	22	29217960	1	4	1	1	0	0	0	0	0	0	0	0	0
LDLRAD3	PRRSL	1	11	36120011	11	36442547	1	4	1	1	0	0	0	0	0	0	0	0	0
CASD1	GNG11	1	7	94182887	7	93555403	1	2	2	1	1	1	1	1	1	0	0	0	0
RP11-85K15	BAZ1A	1	14	35390795	14	35343868	1	3	1	1	0	0	0	0	0	0	0	0	0
TBC1D16	ACD12354.6	1	17	77983959	2	45193557	2	21	17	1	1	1	0	1	1	0	0	0	0
FOSL2	BRE	1	2	28616689	2	28460069	2	31	16	1	1	0	0	1	1	1	0	0	0
MANBA	UBE2D3	1	4	103681875	4	103731012	2	23	8	1	1	0	1	0	1	0	0	0	0
SMDT1	NDUFA6-AS1	1	22	42475958	22	42520052	2	12	7	1	0	0	0	0	0	0	0	0	0
AC026150.8	GOLGA8H	0	15	30838172	15	30898046	2	10	2	1	0	0	0	0	0	0	0	0	0
RP11-680G11	GSE1	1	16	85391249	16	85667520	2	7	4	1	1	0	0	0	0	0	0	0	0
LINC00472	RP11-154D6.1	0	6	72126113	6	71943360	2	4	6	1	0	0	0	0	0	0	0	0	0
CNPY3	GNMT	1	6	42903408	6	42929950	2	5	4	1	1	0	0	0	0	0	0	0	0
CNPY3	RP3-475N16.1	1	6	42905945	6	42911536	2	4	4	1	1	0	0	0	0	0	0	0	0
GNA12	CARD11	1	7	2883487	7	2998265	2	4	3	1	0	0	0	0	0	0	0	0	0
RBM14	C11orf80	1	11	66384528	11	66526514	2	5	2	1	1	0	0	0	0	0	0	0	0
FARS2	RP3-380B8.4	1	6	5613553	6	5852296	2	1	4	0	1	0	0	0	0	0	0	0	0
FSO1L	SLC44A1	1	9	108234286	9	108200562	2	4	1	1	0	0	0	0	0	0	0	0	0
SK1	CBS	1	21	48841518	21	44473757	2	1	3	0	0	0	0	0	0	0	0	0	0
RP515A	RPLP1	0	15	18794278	15	69745158	3	2	10	0	0	0	0	0	0	0	0	0	0
AC021224.1	HNRNPA1	0	18	29993199	12	54680737	3	7	4	0	0	1	0	0	0	0	0	0	0
PALLD	TSC22D1	1	4	165589519	13	45009019	3	5	4	1	1	1	1	1	1	1	0	0	0
PKD1P5	DOT1L	1	16	18483571	19	2229784	3	1	6	1	0	0	0	1	0	0	0	0	0
EIF4A2	PRPF40A	1	3	186505373	2	153551136	3	2	4	0	1	1	0	1	0	0	0	0	0
DHX36	MATN1-AS1	0	3	153994536	1	31199090	3	3	3	1	1	1	1	1	0	0	0	0	0
TAF15	HNRNPA2B1	1	17	34171732	7	26233314	3	3	3	1	0	0	0	0	0	0	0	0	0
POLR2J3	TRO	1	7	102207444	X	54954100	3	1	4	1	0	0	0	0	0	0	0	0	0
TRMT10B	ASNS	1	9	37762114	7	97481780	3	2	3	1	0	0	0	0	0	0	0	0	0
FBXL8	PCBP1-AS1	1	16	67195840	2	70278437	3	3	2	1	1	1	1	1	1	0	0	0	0
NABP1	INTS10	1	2	192543854	8	19694563	3	3	2	1	1	1	0	1	1	0	0	0	0
PRKAR1A	H3F3A	0	17	66522053	1	226259052	3	3	2	1	0	0	0	0	0	0	0	0	0
MBNL2	ENAH	1	13	97874785	3	225755116	3	4	1	1	0	0	0	0	0	0	0	0	0
FOSL2	TOMM70A	1	2	28616689	3	100091566	3	1	3	1	0	1	1	1	0	0	0	0	0
TPT1-AS1	FRYL	1	13	45944317	4	48517292	3	1	3	0	0	1	0	1	0	0	0	0	0
HNRNPR	KPNA2	1	1	23660011	17	66089021	3	2	2	1	0	0	0	0	0	0	0	0	0
LZIC	RACL1	1	1	9996577	7	6431555	3	2	1	1	0	0	0	0	0	0	0	0	0
PCNXL2	ODC1	1	1	233298704	2	10580994	3	2	2	1	1	0	0	0	0	0	0	0	0
RP11-193F5	HMG12	1	14	61438990	1	26798997	3	2	2	0	1	0	0	0	0	0	0	0	0
RPL4	PF3D5	1	15	66795396	12	53691634	3	2	2	1	1	0	0	0	0	0	0	0	0
BCL2L2-PABP	RPL30	1	14	23793498	8	99054078	3	3	1	1	1	0	0	0	0	0	0	0	0
DAP3	CMC4	1	1	155686919	X	154292308	3	3	1	1	1	0	0	0	0	0	0	0	0
PPHLN1	NCK1	0	12	42749024	3	136667101	3	3	1	1	1	0	0	1	0	0	0	0	0
ANP32B	PTMS	1	9	100773671	12	6879558	3	1	2	1	0	1	0	0	0	0	0	0	0
ATP2A2	RBM39	1	12	110734542	20	34330035	3	1	2	0	0	1	0	0	0	0	0	0	0
BCL2L11	LCMT1	1	2	11878765	16	25175919	3	1	2	1	0	0	0	0	0	0	0	0	0
CLCN6	CRNDE	1	1	11867247	16	54959125	3	1	2	0	0	1	1	1	1	0	0	0	0
CPSF6	SKP2	1	12	69656342	5	36183942	3	1	2	0	0	1	0	0	0	0	0	0	0
NKTR	MED23	1	3	42674315	6	131943119	3	1	2	0	0	1	0	0	0	0	0	0	0
RNGTT	ZC3H13	1	6	89559474	13	46544600	3	1	2	0	0	1	0	0	0	0	0	0	0
SOS2	PEX11A	1	14	50647290	15	90229777	3	1	2	0	0	1	0	0	0	0	0	0	0
UQCRC2	RPL37	1	16	21987564	5	40828053	3	1	2	0	0	1	0	0	0	0	0	0	0
ALG13	SNRPA1	0	X	110925522	15	101827215	3	2	1	1	0	0	0	1	0	0	0	0	0
ANP32A	EEF1B2	1	15	69075295	2	207026762	3	2	1	0	1	0	0	0	0	0	0	0	0
CTSA	TIAL1	1	20	44525679	2	121336262	3	2	1	1	1	0	0	0	0	0	0	0	0
DHRS1	AURKA	0	14	24759809	20	54967352	3	2	1	1	0	0	0	0	0	0	0	0	0

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BCL11B	PPP2R5C	1	14	99723808	14	102323023	3	1	1	0	0	0	0	0	0	0	0	0	0
GBE1	RYPB	1	3	81810526	3	72428578	3	1	1	0	0	0	0	1	0	0	0	0	0
MED15	FBP1	0	22	20905723	11	61735103 NA	4	217	0	0	0	0	1	0	0	0	0	0	0
BTF3	ENSG00000219298	0	5	72794272	6	150299052 NA	34	28	0	0	0	0	0	0	1	0	0	0	0
RP11-338L1	SEPT7P2	0	4	120382872	7	45798673 NA	4	57	0	0	0	0	1	0	0	0	0	0	0
LGALS1	PPP2CA	0	22	38075813	5	133561245 NA	2	50	0	0	0	0	0	0	0	1	0	0	0
RP510	RP11-464D20.2	0	6	343993809	17	60594128 NA	18	25	0	0	0	0	1	0	0	0	0	0	0
AP006222.2	FAM157C	0	1	238567	16	90209008 NA	12	14	0	0	0	0	1	0	0	0	0	0	0
STK17A	YTHDC1	0	7	43664117	4	69197821 NA	15	9	0	0	0	0	1	0	0	0	0	0	0
RP11-384K6	LINC00205	0	4	119549191	7	39822399 NA	9	11	0	0	0	0	1	0	0	0	0	0	0
NSLUN2	PRSS23	0	5	6599353	11	86518673 NA	8	16	0	0	0	0	0	0	0	0	1	0	0
AC137934.1	AC002055.4	0	16	90288794	22	51223721 NA	7	11	0	0	0	0	1	1	0	0	0	0	0
APP	RPL10	0	21	27423509	9	153626718 NA	9	9	0	0	0	0	1	0	0	0	0	0	0
SNHG7	AC074183.4	0	9	139619507	7	84568848 NA	10	6	0	0	0	0	1	0	0	0	0	0	0
ACLY	UBA1	0	17	40034356	9	47073726 NA	13	2	0	0	0	0	1	0	0	0	0	0	0
EVA1C	FAM86B3P	0	21	33805459	8	8099484 NA	6	6	0	0	0	0	1	0	0	0	0	0	0
RP11-87H9.2	FRG18	0	9	69082110	20	29614327 NA	6	6	0	0	0	0	0	0	0	0	0	0	0
RP11-34P13	AC093642.5	0	1	129055	2	243080935 NA	4	7	0	0	0	0	1	0	0	0	0	0	0
XX-C2158C6	AC093642.5	0	6	171054606	2	243081039 NA	4	7	0	0	0	0	1	0	0	0	0	0	0
RP11-14N7.2	AC027612.6	0	1	148933291	2	91843394 NA	5	4	0	0	0	0	1	0	0	0	0	0	0
WASH3P	ABC7-42389800N19	0	15	102513423	12	87703 NA	5	4	0	0	0	0	1	0	0	0	0	0	0
WASH3P	XXyac-YRM2039.2	0	15	102513795	9	17719 NA	5	4	0	0	0	0	1	0	0	0	0	0	0
WASH6P	ABC7-42389800N19	0	X	155252677	12	88017 NA	7	2	0	0	0	0	1	0	0	0	0	0	0
MTERFD2	RP11-597A11.1	0	2	242033847	14	20128737 NA	4	4	0	0	0	0	0	0	0	0	0	0	0
RP510	RP11-425L10.1	0	6	343993809	11	46450700 NA	5	2	0	0	0	0	1	0	0	0	0	0	0
RP11-592N21	RPL17	0	15	71634012	18	47017815 NA	4	2	0	0	0	0	1	0	0	0	0	0	0
RP529	RP11-156G14.6	0	14	50053094	9	35592783 NA	4	2	0	0	0	0	1	0	0	0	0	0	0
ZCCHC7	RCC1	0	9	37205541	1	28835417 NA	4	2	0	0	0	0	1	0	0	0	0	0	0
NCOA7	CTA-293F17.1	1	6	126107359	7	20368479 NA	3	2	0	0	0	0	1	0	0	0	0	0	0
TRAF2	ITPR1	1	9	139811067	3	4878458 NA	3	2	0	0	0	0	0	0	0	1	0	0	0
RTFDC1	RP4-799D16.1	1	20	55052180	1	25370327 NA	4	1	0	0	0	0	1	0	0	0	0	0	0
PELP1	DNAIC2	0	17	4575409	7	102963078 NA	1	3	0	0	0	0	1	0	0	0	0	0	0
PTP4A2	TNFRSF21	0	1	32372022	6	47200730 NA	2	2	0	0	0	0	0	0	0	0	1	0	0
PSMA7	MLF1	0	20	60711791	3	158317803 NA	2	1	0	0	0	0	1	0	0	0	0	0	0
STRC	E2F4	0	15	43910857	16	67229685 NA	2	1	0	0	0	0	1	0	0	0	0	0	0
ACTR6	DHDDS	1	12	100594697	1	26759382 NA	1	1	0	0	0	0	0	1	0	0	0	0	0
ERBB2IP	KTN1	1	5	65222634	14	56078737 NA	1	1	0	0	0	0	1	0	0	0	0	0	0
MTHFD1L	RPL32	0	6	151413722	3	12881839 NA	1	1	0	0	0	0	0	0	0	0	0	0	0
RP510	RP3-375P9.2	0	6	343993809	6	34711953 NA	8	167	0	0	0	0	1	0	0	0	0	0	0
U91319.1	SHISA9	0	16	13444037	16	13297406 NA	6	82	0	0	0	0	1	0	0	0	0	0	0
PKD1P1	RP11-121A22.1	0	16	16434163	16	18428708 NA	5	45	0	0	0	0	1	0	0	0	0	0	0
PKD1P1	RP11-958N24.1	0	16	16434163	16	15029254 NA	5	45	0	0	0	0	1	0	0	0	0	0	0
CTD-2334D15	PRR16	0	5	120125649	5	119800340 NA	15	16	0	0	0	0	0	0	0	0	0	0	0
PPP1R10	ABC1	0	6	30573812	6	30539337 NA	8	17	0	0	0	0	1	0	0	0	0	0	0
BUD31	ATP5I2-PTCD1	0	7	99017239	7	99026827 NA	12	9	0	0	0	0	0	0	0	1	0	0	0
PDXDC2P	PKD1P1	0	16	70016253	16	18455134 NA	8	12	0	0	0	0	1	0	0	0	0	0	0
TAS2R14	PRH2	0	12	11126254	12	11083261 NA	18	2	0	0	0	0	0	1	0	0	0	0	0
RP11-467L19	HERC2	0	15	20724201	15	28501235 NA	8	10	0	0	0	0	1	0	0	0	0	0	0
AC022596.6	KRT14	0	17	16721553	17	39739392 NA	5	12	0	0	0	0	1	0	0	0	0	0	0
PKD1P1	NPIPP1	0	16	16434163	16	15219548 NA	6	8	0	0	0	0	1	0	0	0	0	0	0
CAST	CTD-2337A12.1	0	5	96011243	5	95715356 NA	7	7	0	0	0	0	1	0	0	0	0	0	0
BMS1	MBLIP	0	10	43279810	10	81664805 NA	9	4	0	0	0	0	0	0	0	0	0	0	0
MATN2	RPL30	0	8	99048442	8	99057316 NA	10	3	0	0	0	0	1	0	0	0	0	0	0
AGAP6	TMM23B	0	10	51749068	10	51387763 NA	11	1	0	0	0	0	1	0	0	0	0	0	0
AC159540.1	LINC00342	0	2	98088770	2	96473050 NA	4	7	0	0	0	0	1	0	0	0	0	0	0
POMZP3	ZP3	0	7	76241039	7	76069756 NA	4	7	0	0	0	0	1	0	0	0	0	0	0
RP11-307E17	HIATL2	0	9	97101118	9	99711837 NA	4	7	0	0	0	0	1	1	0	0	0	0	0
PKD1P5	NPIPP1	0	16	18462115	16	15204678 NA	8	3	0	0	0	0	1	0	0	0	0	0	0
BIRC6	LTBP1	0	2	32631567	2	33246273 NA	5	5	0	0	0	0	1	1	0	0	0	0	0
RP11-927P21	ARL17B	0	17	62897188	17	44376892 NA	5	5	0	0	0	0	1	0	0	0	0	0	0
POLR2J4	PMS2P5	0	7	44053192	7	74366193 NA	6	3	0	0	0	0	1	0	0	0	0	0	0
RP11-592B15	PARG	0	10	51314980	10	51087876 NA	6	3	0	0	0	0	1	0	0	0	0	0	0
RGPD3	RANBP2	0	2	107042450	2	109379693 NA	7	2	0	0	0	0	1	0	0	0	0	0	0
CHCHD3	EXOC4	0	7	132659929	7	132990631 NA	1	7	0	0	0	0	1	0	0	0	0	0	0
RP11-798G7	ARL17B	0	17	43635773	17	44376892 NA	4	4	0	0	0	0	1	0	0	0	0	0	0
WDR41	KRTCAP2	0	5	76758920	1	155145104 NA	4	3	0	0	0	0	1	0	0	0	0	0	0
AC012309.5	LINC00665	0	19	37748296	19	36804224 NA	5	3	0	0	0	0	1	0	0	0	0	0	0
DTX2P1	PMS2P1	0	7	76648314	4	99918707 NA	4	3	0	0	0	0	1	0	0	0	0	0	0
EMR2	CD97	0	19	14885068	19	14499514 NA	5	2	0	0	0	0	1	0	0	0	0	0	0
PKD1	NPIPP1	0	16	2150167	16	15221754 NA	5	2	0	0	0	0	1	0	0	0	0	0	0
RP11-250B2	BCKDHB	0	6	81162874	6	80982938 NA	4	2	0	0	0	0	1	0	0	0	0	0	0
PDDR	RP11-252A24.2	0	16	70154364	16	74401963 NA	4	1	0	0	0								