

## Targeting AURKB for SKCM treatment

**Supplementary Table 1.** Candidate miRNAs targeting MTND4P12

Pseudogene	miRNA	mirAccession	Coefficient	P-value
MTND4P12	hsa-miR-766-5p	MIMAT0022714	0.025	5.91E-01
MTND4P12	hsa-miR-1185-5p	MIMAT0005798	-0.006	9.07E-01
MTND4P12	hsa-miR-3679-5p	MIMAT0018104	0.037	4.34E-01
MTND4P12	hsa-miR-6823-3p	MIMAT0027547	0.036	4.44E-01
MTND4P12	hsa-miR-3605-5p	MIMAT0017981	0.025	5.92E-01
MTND4P12	hsa-miR-580-3p	MIMAT0003245	0.058	2.21E-01
MTND4P12	hsa-miR-574-5p	MIMAT0004795	-0.001	9.99E-01
MTND4P12	hsa-miR-6746-3p	MIMAT0027393	-0.017	7.18E-01
MTND4P12	hsa-miR-24-3p	MIMAT0000080	-0.013	7.86E-01
MTND4P12	hsa-miR-3174	MIMAT0015051	0.075	1.13E-01
MTND4P12	hsa-miR-491-5p	MIMAT0002807	0.037	4.29E-01
MTND4P12	hsa-miR-3163	MIMAT0015037	0.016	7.38E-01
MTND4P12	hsa-miR-4458	MIMAT0018980	0.041	3.86E-01
MTND4P12	hsa-let-7a-5p	MIMAT0000062	-0.021	6.61E-01
MTND4P12	hsa-let-7b-5p	MIMAT0000063	-0.028	5.58E-01
MTND4P12	hsa-let-7c-5p	MIMAT0000064	0.015	7.55E-01
MTND4P12	hsa-let-7e-5p	MIMAT0000066	-0.097	3.92E-02
MTND4P12	hsa-let-7i-5p	MIMAT0000415	0.068	1.48E-01
MTND4P12	hsa-miR-3184-5p	MIMAT0015064	0.036	4.41E-01
MTND4P12	hsa-miR-196a-5p	MIMAT0000226	0.045	3.38E-01
MTND4P12	hsa-miR-196b-5p	MIMAT0001080	0.095	4.34E-02
MTND4P12	hsa-miR-4784	MIMAT0019948	0.035	4.54E-01
MTND4P12	hsa-miR-3150b-3p	MIMAT0018194	0.117	1.31E-02
MTND4P12	hsa-miR-4525	MIMAT0019064	-0.067	1.58E-01
MTND4P12	hsa-miR-1193	MIMAT0015049	-0.114	1.59E-02
MTND4P12	hsa-miR-4677-3p	MIMAT0019761	0.075	1.14E-01

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**Supplementary Table 2.** Candidate mRNAs targeting hsa-let-7e-5p and hsa-miR-1193

miRNA	Target Gene	Experiments	Support Type
hsa-miR-1193	PVR	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	LRRC1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	GAGE1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CAPZA1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	TOMM20	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	AP3D1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	POC1A	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	FSTL4	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	METTL1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	EFNB1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	XKR4	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	WASL	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	TWIST1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	SOX4	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	PDPR	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	NRAS	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	KLHDC3	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	FAM217B	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CCNF	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CCND1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CALM3	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	BCL9L	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	AGO2	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	POGZ	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	H3F3A	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	RAB11FIP4	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	SYNPO2L	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	C11orf74	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	C6orf132	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	YARS	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	YOD1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	ARGLU1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CDK2AP2	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	TBC1D4	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	ABI2	PAR-CLIP	Functional MTI (Weak)

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hsa-miR-1193	SLC28A1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	H3F3B	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	MEIS3P1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	ASB16	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CHD4	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CRY2	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	DIRAS1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	MYH9	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	PTMA	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	SERPINH1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	SUSD1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	WDTC1	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	WNT8B	PAR-CLIP	Functional MTI (Weak)
hsa-miR-1193	CHD9	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	CALU	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	CCDC85C	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	PLEKHA2	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	COL22A1	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ICA1L	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	SEC14L4	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	CCDC69	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	WDR92	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	MSRB3	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	HM13	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	BLOC1S6	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	SH3D19	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	RALGPS2	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	KIF1C	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	MTRNR2L5	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	C20orf144	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	SLC35F6	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	KIR3DX1	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ABHD15	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	C9orf3	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	GINM1	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	SLC35F5	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	IRGQ	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	HFE	HITS-CLIP	Functional MTI (Weak)

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hsa-miR-1193	ZNF786	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	UBN2	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	XIAP	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	PPP1R3B	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	HRH4	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	LRRD1	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ISG20L2	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	TIMM29	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	MRPL10	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	KDELRL1	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ZSCAN2	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	F2R	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	SMG1	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	QRFPR	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	PSMB2	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ZNF669	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	SYNDIG1L	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	KIAA1586	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ATG2A	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	FXN	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	MAP2	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	NLRP11	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ZC2HC1C	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	ABCF1	HITS-CLIP	Functional MTI (Weak)
hsa-miR-1193	BORCS7	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MYC	TRAP	Functional MTI (Weak)
hsa-let-7e-5p	MYCN	Reporter assay	Functional MTI
hsa-let-7e-5p	EZH2	qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	TNFRSF10B	qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	POTEG	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RDX	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	IGF2BP3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NUP155	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PDP2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CBX5	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PMPCA	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ADIPOR2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ESPL1	PAR-CLIP	Functional MTI (Weak)

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hsa-let-7e-5p	TMTC3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TXLNA	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NHLRC3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FNDC3A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ARID3B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SMCR8	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	IGF2BP1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ONECUT2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZCCHC3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	BACH1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PCGF3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SMARCAD1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	GRPEL2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ABT1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MDM4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	STK4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PDE12	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TNFSF9	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NCOA3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SUOX	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NAA30	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MAPK6	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C5orf51	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CDKN1A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	UBXN2B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TRIM71	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	EDN1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SALL3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CDV3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PGRMC1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TXLNG	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CLDN12	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C11orf57	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PEX11B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C1orf21	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF264	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RRM2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC20A1	PAR-CLIP	Functional MTI (Weak)

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hsa-let-7e-5p	BZW1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KREMEN1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MXD1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NAT8L	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PPP2R2A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ACER2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ATP6V1F	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NDUFA4P1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ATP6V1G1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KIF27	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ANKRD46	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FMNL3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C19orf53	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C1RL	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NUCB2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	QDPR	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DISC1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	HIST1H2BK	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RABL2A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ACOT9	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	GLO1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RABL2B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF587	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	THEM6	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MRPL12	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FUT10	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RRM1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NOM1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NOA1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	OPA3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	COL8A1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	YAE1D1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF8	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZC3HAV1L	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	YWHAZ	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	VCL	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TSC22D2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SYNJ2BP	PAR-CLIP	Functional MTI (Weak)

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hsa-let-7e-5p	RNF144B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RAB40C	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PPP1R15B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	POLR2D	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PLXND1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PGM2L1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NR6A1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NAA20	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MTUS1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MLLT10	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MIEF1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MAP2K7	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	LYN	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	LRRC20	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KLHDC8B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KIAA0930	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KCTD21	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	IFNLR1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ICOSLG	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FAM83G	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	EIF4G2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	EFHD2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ATXN7L3B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ATXN7L3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ATG9A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ATG12	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AREL1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AP1S1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AHR	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AHCYL2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PLAGL2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF28	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TUBB2A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZBTB5	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SOCS1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PMAIP1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	LIMD2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FAM43A	PAR-CLIP	Functional MTI (Weak)

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hsa-let-7e-5p	CEP120	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TBC1D19	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SNX17	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC12A7	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PLEKH01	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PLCG2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	GGA3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SDR42E1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MFSD8	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	HIST1H2BD	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	THBS1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	STRN	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC5A6	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC10A7	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SUMO1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SEMA4C	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RNFT1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RNF44	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RBFOX2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NSD1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MBD2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KPNA5	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KMT2D	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CEP135	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CELF1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C12orf4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF644	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	IGDCC4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	COIL	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DIABLO	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AK4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF566	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CD59	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TRMO	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FZD9	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FBXW2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DVL3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DNA2	PAR-CLIP	Functional MTI (Weak)



## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	SOD2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RRAD	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	OPRL1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	LEFTY1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RBM12B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC16A9	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PM20D2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF200	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TGFBR3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MSI2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	LRIG3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FBXL20	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	EPHA4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DUSP1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DNAL1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	COLEC12	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CCNT2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	BEND4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KIAA0391	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ECHDC1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ACTA1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AKAP8	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RAD18	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF460	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	USP38	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PLEKHA3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PDZD8	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	HAND1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FAM222B	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C19orf47	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ARIH1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PEG10	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SURF4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PARP16	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	E2F6	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ABHD17C	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	THYN1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TGOLN2	PAR-CLIP	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	ZBTB37	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	GOLGA4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FAM104A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZFAND4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RAB19	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ADH5	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CASTOR2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CRX	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CXCL8	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DYRK3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ERO1A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FNDC9	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	GATM	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	GPAT4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KIAA1143	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MARCKSL1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MARS2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MEF2D	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MIDN	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PBX2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PDLIM5	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PLD3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	POLL	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	POTEM	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RHBDF2	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SOCS7	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SYT1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TIAF1	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TOMM40L	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TRAPPC10	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TUBB4A	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF609	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AQP6	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	IL6R	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MAGEA12	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MAGEA3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MAGEA6	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PDGFB	PAR-CLIP	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	PRR5-ARHGAP8	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	STX3	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TMED4	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	USP47	PAR-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CDKAL1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	HMGA1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CHTOP	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF774	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RHD	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FAM105A	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC11A2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TMED5	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	HERPUD1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	GABPB1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FIGN	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	C1orf210	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	IKZF3	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZBTB80S	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF611	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MCF2L2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	HASPIN	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	EMILIN2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RWDD1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FM04	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF556	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PRIM2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF584	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF578	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ARL8B	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	INTS7	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	RFC2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	BRI3BP	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	STAT2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF738	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DTX3L	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	EIF4A3	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DNAH9	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC19A3	HITS-CLIP	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	ITGA3	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SLC38A7	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	SAR1A	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PHACTR4	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	MTX3	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CPA4	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	COX6B1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	FPR1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ATXN2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF799	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	DNAJC28	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF417	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	ZNF443	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PRSS22	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NHLRC2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	KIAA1328	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	IPO9	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	EDEM3	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	CTPS1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	AMD1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	NAP1L1	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	PAFAH2	HITS-CLIP	Functional MTI (Weak)
hsa-let-7e-5p	TBC1D31	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	FAM219B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	C11orf91	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CENPP	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TMEM107	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SREBF1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DAAM1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DGCR8	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RAP1A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPA1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SKIV2L	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPS27	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ARNT2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GPM6B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TTLL12	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HIST2H2BF	CLASH	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	CELF2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	VPS13D	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPL10	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SPCS2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DCAF8	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CTC1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NAA60	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PHF3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TUBA1B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SHANK1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SKA2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SPTBN1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ND2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MED13L	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RCOR3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MACF1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PCBP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	UBAP2L	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CDCA3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CABLES1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	BTRC	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	C12orf49	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TIMP3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RCC1L	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SLC2A11	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NF1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	LRRC8A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RUNX1T1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DTNB	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SCMH1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	YWHAG	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RHBDD2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ND5	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NDST1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	EIF4A1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	BAHCC1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CARM1	CLASH	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	DYRK2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ND3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PIGS	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ALG13	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPN2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPL12	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NME4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	IVD	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	JAZF1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ND4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	VARS	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RNF26	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	LHFPL2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ARCN1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	COX1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SLC12A4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	AEBP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GATB	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	UROC1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	BSDC1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PTK2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CDC5L	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	EN2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SSB	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SLC03A1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RRAGC	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZNF236	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SEMA4B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SERBP1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GTF2I	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	JMJD1C	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	OTUD5	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NOLC1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PPIG	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PSMD2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	UGGT1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	VAMP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	LSR	CLASH	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	KIAA0355	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPSA	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DCAF6	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	UHRF1BP1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	OTUB1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PIGP	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	LMLN	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PPP2R1A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HIPK1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SERF2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RBM4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RBM14	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HMGB1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GMPS	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DIAPH1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	STAM	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	YWHAQ	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	APPL1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MARCH5	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SQLE	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TIMM50	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NDUFA3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NDUFS5	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NRSN2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SALL1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	COX3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RABL6	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SUPT4H1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PACS2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MTMR14	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	LUZP1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PFAS	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SUZ12	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PAPD4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	QSOX1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SPATA13	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DHX57	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	KATNB1	CLASH	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	COL6A1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DHX15	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MTCH2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	KIAA0100	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SUGP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NCLN	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ATXN2L	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PES1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GNG5	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ARHGAP19	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MTFR1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	IRS2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	IRS4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PPP1R10	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZNF284	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	YWHAE	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SCD	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	FDPS	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	KRBOX4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	BRI3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CHD7	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PYCR1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SMAP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	WDFY3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CRK	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SRSF2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PGD	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RMND5A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZNF652	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PSMA6	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SLC38A2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	LRRC41	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RANBP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SVIL	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CCNG1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZNF256	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	COPG1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PDCD11	CLASH	Functional MTI (Weak)



## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	CNBP	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	USP37	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	UBE2V2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	UBE2H	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	LMNA	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	STAT3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TRPV1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MATR3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HNRNPC	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HS6ST2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	WDR48	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RBM8A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SCYL1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	C19orf48	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	FOXD4L6	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PIGN	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SPCS3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TNFAIP1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MS4A10	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MSM01	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ARID1A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NCKIPSD	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NCBP1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	COX16	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NUDT8	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PHKA1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TXNRD1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ELMSAN1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CTSA	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PRRC2A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SPAG9	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	AGMAT	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NCKAP5L	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZFP62	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	EIF4EBP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	POLR3D	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PRPF8	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ATP6	CLASH	Functional MTI (Weak)

## Targeting AURKB for SKCM treatment

hsa-let-7e-5p	ZFAND5	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	BAZ1B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	KATNAL1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	BMP2K	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SPN	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PA2G4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPRD2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TUBB4B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TRRAP	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SLCO4A1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NOCT	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	USE1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	STARD7	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CLTC	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TERF1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PAX3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CCDC97	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HLA-C	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GTPBP8	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	VGLL4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ANKRD40	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HNRNPUL1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ND1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DSP	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZNF805	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RBBP4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	OCLN	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	AMPD2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MKI67	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SUB1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RSL1D1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SEC23IP	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RNMT	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SGSM3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZFP3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GLUL	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	POLD1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	WDR4	CLASH	Functional MTI (Weak)

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hsa-let-7e-5p	PPP1R2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RAI2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PLCXD1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	UTP15	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	THADA	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZNF451	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CREBBP	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZNF770	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CLDN4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ZKSCAN7	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NICN1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPLP2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DCBLD2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CA5B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	COX14	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PSD3	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RPL27A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CWC15	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NT5DC2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	OR7D2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	HIF1AN	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	NUDT15	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CDH18	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	FAM160B1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	DZIP1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TDRD7	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TCF4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	ENSA	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	GTF3C1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	TNFRSF1A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CCDC113	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MYO9B	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	COX10	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PRAMEF13	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	MRPS2	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	RACGAP1	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CCDC106	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	CYP2B6	CLASH	Functional MTI (Weak)

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hsa-let-7e-5p	PSME4	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	SETD1A	CLASH	Functional MTI (Weak)
hsa-let-7e-5p	PLK1	Microarray//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	TNFAIP3	Luciferase reporter assay//Western blot	Functional MTI
hsa-let-7e-5p	IGF1R	Luciferase reporter assay//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	MMP9	Luciferase reporter assay//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	IGF1	Luciferase reporter assay//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	ARID3A	Luciferase reporter assay//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	LIN28A	Luciferase reporter assay//Microarray//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	AURKB	Luciferase reporter assay//Microarray//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	SMC1A	Luciferase reporter assay//Reporter assay; Other	Functional MTI
hsa-let-7e-5p	EIF3J	Luciferase reporter assay//Reporter assay	Non-Functional MTI
hsa-let-7e-5p	HMGA2	Luciferase reporter assay//qRT-PCR	Functional MTI
hsa-let-7e-5p	MPL	Luciferase reporter assay	Non-Functional MTI
hsa-let-7e-5p	FASLG	Luciferase reporter assay	Functional MTI
hsa-let-7e-5p	AGO1	Immunohistochemistry//Immunoprecipitaion//Luciferase reporter assay//Northern blot//qRT-PCR//Western blot	Functional MTI
hsa-let-7e-5p	WNT1	Flow//Immunoblot//Luciferase reporter assay//Microarray//qRT-PCR	Functional MTI

## Targeting AURKB for SKCM treatment

**Supplementary Table 3.** List of differentially expressed genes (DEGs) between AZD2511 treatment and control group

Gene symbol	Gene title	logFC	Adj P-value	P-value	t-statistic
Upregulated					
GINS2	GINS complex subunit 2	1.96	3.48E-14	2.94E-18	2.42E+01
CDC45	cell division cycle 45	1.88	2.93E-13	4.33E-17	2.15E+01
E2F2	E2F transcription factor 2	1.8	8.61E-13	2.73E-16	1.98E+01
CCL2	C-C motif chemokine ligand 2	1.72	2.93E-13	3.72E-17	2.17E+01
CDCA5	cell division cycle associated 5	1.65	3.54E-13	6.74E-17	2.11E+01
CHAF1B	chromatin assembly factor 1 subunit B	1.63	1.03E-11	8.69E-15	1.70E+01
POLA2	DNA polymerase alpha 2, accessory subunit	1.59	4.23E-12	2.15E-15	1.81E+01
RRM2	ribonucleotide reductase regulatory subunit M2	1.58	2.04E-10	4.36E-13	1.42E+01
ATAD2	ATPase family, AAA domain containing 2	1.5	5.31E-12	3.21E-15	1.78E+01
FAM83D	family with sequence similarity 83 member D	1.48	7.13E-12	4.97E-15	1.74E+01
MCM5	Minichromosome maintenance complex component 5	1.47	3.20E-12	1.49E-15	1.84E+01
DTL	Denticle less E3 ubiquitin protein ligase homolog	1.46	7.37E-12	5.36E-15	1.73E+01
CDT1	chromatin licensing and DNA replication factor 1	1.46	4.30E-11	6.14E-14	1.55E+01
AURKB	aurora kinase B	1.45	5.31E-12	3.33E-15	1.77E+01
DNAJC9	DnaJ heat shock protein family (Hsp40) member C9	1.45	8.92E-12	7.35E-15	1.71E+01
RAD51AP1	RAD51 associated protein 1	1.45	1.07E-10	1.97E-13	1.47E+01
DDIAS	DNA damage induced apoptosis suppressor	1.44	6.74E-12	4.56E-15	1.75E+01
GINS3	GINS complex subunit 3	1.44	5.58E-11	8.96E-14	1.53E+01
MCM2	minichromosome maintenance complex component 2	1.41	1.17E-11	1.11E-14	1.68E+01
C1orf112	chromosome 1 open reading frame 112	1.38	4.98E-12	2.84E-15	1.78E+01
STIL	SCL/TAL1 interrupting locus	1.35	5.81E-11	9.46E-14	1.52E+01
CENPU	centromere protein U	1.35	6.57E-10	2.07E-12	1.32E+01
BARD1	BRCA1 associated RING domain 1	1.35	2.56E-09	1.16E-11	1.21E+01
NCAPG	non-SMC condensin I complex subunit G	1.34	3.29E-11	4.26E-14	1.58E+01
MCM10	minichromosome maintenance 10 replication initiation factor	1.34	4.30E-11	6.27E-14	1.55E+01
RNASEH2A	ribonuclease H2 subunit A	1.33	1.63E-11	1.66E-14	1.65E+01
TK1	thymidine kinase 1	1.33	1.65E-10	3.21E-13	1.44E+01
KIFC1	kinesin family member C1	1.33	2.47E-10	5.89E-13	1.40E+01
CXCL1	C-X-C motif chemokine ligand 1	1.33	8.44E-09	5.10E-11	1.13E+01
SKA3	spindle and kinetochore associated complex subunit 3	1.32	2.40E-11	2.73E-14	1.61E+01
MCM6	minichromosome maintenance complex component 6	1.31	2.95E-11	3.75E-14	1.59E+01
PRIM1	primase (DNA) subunit 1	1.29	6.17E-11	1.03E-13	1.52E+01

## Targeting AURKB for SKCM treatment

MCM4	minichromosome maintenance complex component 4	1.27	1.65E-11	1.70E-14	1.65E+01
ID3	inhibitor of DNA binding 3, HLH protein	1.27	3.56E-10	9.71E-13	1.36E+01
CDC20	cell division cycle 20	1.27	3.92E-10	1.08E-12	1.36E+01
TACC3	transforming acidic coiled-coil containing protein 3	1.26	6.17E-11	1.03E-13	1.52E+01
RAD54L	RAD54-like ( <i>S. cerevisiae</i> )	1.26	2.55E-10	6.31E-13	1.39E+01
POLE2	DNA polymerase epsilon 2, accessory subunit	1.25	4.64E-11	7.16E-14	1.54E+01
TRIP13	thyroid hormone receptor interactor 13	1.25	2.17E-10	4.81E-13	1.41E+01
MELK	maternal embryonic leucine zipper kinase	1.25	2.21E-10	5.05E-13	1.41E+01
CCNA2	cyclin A2	1.24	3.47E-10	9.40E-13	1.37E+01
ASF1B	anti-silencing function 1B histone chaperone	1.24	1.78E-09	7.23E-12	1.24E+01
SUV39H1	suppressor of variegation 3-9 homolog 1	1.23	4.13E-11	5.68E-14	1.56E+01
POLQ	DNA polymerase theta	1.23	8.74E-11	1.54E-13	1.49E+01
RPA2	replication protein A2	1.23	1.61E-09	6.31E-12	1.25E+01
CDCA3	cell division cycle associated 3	1.22	8.74E-11	1.55E-13	1.49E+01
PLK4	polo like kinase 4	1.22	2.04E-10	4.40E-13	1.42E+01
DSCC1	DNA replication and sister chromatid cohesion 1	1.22	2.94E-09	1.39E-11	1.20E+01
IL6	interleukin 6	1.21	1.22E-10	2.30E-13	1.46E+01
HIRIP3	HIRA interacting protein 3	1.21	1.66E-09	6.65E-12	1.24E+01
KIF11	kinesin family member 11	1.21	1.84E-09	7.63E-12	1.24E+01
GEMIN4	gem nuclear organelle associated protein 4	1.2	4.40E-11	6.51E-14	1.55E+01
CCNF	cyclin F	1.2	2.64E-10	6.64E-13	1.39E+01
MCM3	minichromosome maintenance complex component 3	1.2	2.98E-10	7.62E-13	1.38E+01
CDCA8	cell division cycle associated 8	1.2	9.06E-10	3.06E-12	1.29E+01
USP1	ubiquitin specific peptidase 1	1.2	1.57E-09	6.09E-12	1.25E+01
CHAF1A	chromatin assembly factor 1 subunit A	1.2	1.64E-09	6.48E-12	1.25E+01
CDK1	cyclin dependent kinase 1	1.19	3.14E-09	1.50E-11	1.20E+01
KIF22	kinesin family member 22	1.18	6.57E-10	2.05E-12	1.32E+01
S100A3	S100 calcium binding protein A3	1.17	1.73E-10	3.56E-13	1.43E+01
FANCG	Fanconi anemia complementation group G	1.17	3.14E-10	8.09E-13	1.38E+01
SKP2	S-phase kinase-associated protein 2, E3 ubiquitin protein ligase	1.16	6.76E-10	2.14E-12	1.31E+01
NUP85	nucleoporin 85	1.16	1.43E-09	5.27E-12	1.26E+01
SPDL1	spindle apparatus coiled-coil protein 1	1.16	1.43E-09	5.34E-12	1.26E+01
CBX2	chromobox 2	1.15	4.62E-10	1.30E-12	1.35E+01
MASTL	microtubule associated serine/threonine kinase like	1.13	4.71E-10	1.33E-12	1.34E+01
POLA1	DNA polymerase alpha 1, catalytic subunit	1.13	4.92E-10	1.41E-12	1.34E+01

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POC1A	POC1 centriolar protein A	1.12	2.68E-10	6.80E-13	1.39E+01
RFWD3	ring finger and WD repeat domain 3	1.12	3.32E-10	8.70E-13	1.37E+01
HIST1H4C	histone cluster 1, H4c	1.12	4.74E-10	1.35E-12	1.34E+01
AUNIP	aurora kinase A and ninein interacting protein	1.12	7.17E-10	2.30E-12	1.31E+01
TOP2A	topoisomerase (DNA) II alpha	1.12	1.46E-09	5.54E-12	1.26E+01
UBE2T	ubiquitin conjugating enzyme E2 T	1.11	3.97E-10	1.11E-12	1.36E+01
SPC25	SPC25, NDC80 kinetochore complex component	1.11	6.36E-10	1.98E-12	1.32E+01
LRR1	leucine rich repeat protein 1	1.11	1.43E-09	5.27E-12	1.26E+01
CDCA2	cell division cycle associated 2	1.11	2.27E-09	1.00E-11	1.22E+01
CKAP2L	cytoskeleton associated protein 2 like	1.11	3.24E-09	1.56E-11	1.19E+01
C17orf53	chromosome 17 open reading frame 53	1.11	4.44E-09	2.27E-11	1.17E+01
CCDC34	coiled-coil domain containing 34	1.1	9.34E-10	3.20E-12	1.29E+01
ORC6	origin recognition complex subunit 6	1.1	1.91E-09	8.05E-12	1.23E+01
CEP55	centrosomal protein 55	1.09	5.68E-10	1.73E-12	1.33E+01
C16orf59	chromosome 16 open reading frame 59	1.09	1.46E-09	5.46E-12	1.26E+01
LMNB2	lamin B2	1.08	3.30E-10	8.59E-13	1.37E+01
IL7R	interleukin 7 receptor	1.08	9.89E-10	3.41E-12	1.29E+01
MCMBP	minichromosome maintenance complex binding protein	1.08	1.02E-09	3.55E-12	1.28E+01
TPX2	TPX2, microtubule nucleation factor	1.08	1.06E-09	3.73E-12	1.28E+01
NUSAP1	nucleolar and spindle associated protein 1	1.08	1.47E-09	5.58E-12	1.26E+01
RMI1	RecQ mediated genome instability 1	1.07	5.46E-10	1.60E-12	1.33E+01
MID1	midline 1	1.07	7.22E-10	2.35E-12	1.31E+01
BUB1	BUB1 mitotic checkpoint serine/threonine kinase	1.07	1.08E-09	3.82E-12	1.28E+01
FAM19A3	family with sequence similarity 19 member A3, C-C motif chemokine like	1.07	1.49E-09	5.72E-12	1.25E+01
FANCI	Fanconi anemia complementation group I	1.07	1.81E-09	7.44E-12	1.24E+01
ZWINT	ZW10 interacting kinetochore protein	1.07	2.11E-09	9.04E-12	1.23E+01
CHEK1	checkpoint kinase 1	1.06	1.46E-09	5.51E-12	1.26E+01
TIMELESS	timeless circadian clock	1.06	2.00E-09	8.47E-12	1.23E+01
TEX30	testis expressed 30	1.06	2.16E-09	9.34E-12	1.22E+01
GTSE1	G2 and S-phase expressed 1	1.06	7.35E-09	4.25E-11	1.14E+01
GMNN	geminin, DNA replication inhibitor	1.06	1.62E-08	1.15E-10	1.08E+01
CDKN3	cyclin dependent kinase inhibitor 3	1.05	7.46E-10	2.46E-12	1.31E+01
KNTC1	kinetochore associated 1	1.05	8.32E-10	2.78E-12	1.30E+01
TIPIN	TIMELESS interacting protein	1.04	5.54E-10	1.64E-12	1.33E+01
FN3KRP	fructosamine 3 kinase related protein	1.04	2.64E-09	1.22E-11	1.21E+01

## Targeting AURKB for SKCM treatment

RMI2	RecQ mediated genome instability 2	1.03	7.22E-10	2.34E-12	1.31E+01
AURKA	aurora kinase A	1.03	1.79E-09	7.30E-12	1.24E+01
RANGAP1	Ran GTPase activating protein 1	1.03	3.26E-09	1.58E-11	1.19E+01
C19orf48	chromosome 19 open reading frame 48	1.02	1.61E-09	6.26E-12	1.25E+01
SAAL1	serum amyloid A like 1	1.02	2.23E-09	9.82E-12	1.22E+01
BLM	Bloom syndrome RecQ like helicase	1.02	6.99E-09	3.96E-11	1.14E+01
CCDC138	coiled-coil domain containing 138	1.01	2.61E-09	1.20E-11	1.21E+01
FOXM1	forkhead box M1	1.01	3.74E-09	1.87E-11	1.18E+01
HJURP	Holliday junction recognition protein	1.01	3.86E-09	1.96E-11	1.18E+01
Downregulated					
GDF15	growth differentiation factor 15	-2.59	3.44E-16	7.27E-21	-3.14E+01
TRIB3	tribbles pseudokinase 3	-2.08	1.70E-12	7.20E-16	-1.90E+01
DNAJB9	DnaJ heat shock protein family (Hsp40) member B9	-1.93	3.54E-13	6.73E-17	-2.11E+01
DDIT3	DNA damage inducible transcript 3	-1.92	4.92E-13	1.14E-16	-2.06E+01
HMGCS1	3-hydroxy-3-methylglutaryl-CoA synthase 1	-1.8	5.14E-13	1.41E-16	-2.04E+01
HSPA5	heat shock protein family A (Hsp70) member 5	-1.71	5.14E-13	1.41E-16	-2.04E+01
ITIH6	inter-alpha-trypsin inhibitor heavy chain family member 6	-1.71	8.50E-12	6.83E-15	-1.72E+01
C11orf96	chromosome 11 open reading frame 96	-1.61	1.94E-12	8.62E-16	-1.88E+01
PTPRZ1	protein tyrosine phosphatase, receptor type Z1	-1.5	1.76E-11	1.90E-14	-1.64E+01
MSMO1	methylsterol monooxygenase 1	-1.5	2.28E-10	5.35E-13	-1.40E+01
FABP7	fatty acid binding protein 7	-1.49	2.77E-11	3.46E-14	-1.59E+01
PLA1A	phospholipase A1 member A	-1.45	8.50E-12	6.82E-15	-1.72E+01
CPVL	carboxypeptidase, vitellogenic like	-1.43	4.57E-12	2.50E-15	-1.80E+01
INSIG1	insulin induced gene 1	-1.41	1.87E-11	2.06E-14	-1.63E+01
ATF4	activating transcription factor 4	-1.4	1.64E-09	6.46E-12	-1.25E+01
DDIT4	DNA damage inducible transcript 4	-1.38	2.42E-11	2.81E-14	-1.61E+01
WIPI1	WD repeat domain, phosphoinositide interacting 1	-1.37	5.43E-10	1.58E-12	-1.33E+01
RPS6KA2	ribosomal protein S6 kinase A2	-1.36	4.64E-11	7.17E-14	-1.54E+01
ASNS	asparagine synthetase (glutamine-hydrolyzing)	-1.33	3.29E-11	4.35E-14	-1.58E+01
WARS	tryptophanyl-tRNA synthetase	-1.33	4.64E-11	7.04E-14	-1.54E+01
CRELD1	cysteine rich with EGF like domains 1	-1.32	3.81E-11	5.16E-14	-1.56E+01
SQLE	squalene epoxidase	-1.3	1.63E-11	1.65E-14	-1.65E+01
A2M	alpha-2-macroglobulin	-1.29	3.29E-11	4.38E-14	-1.58E+01
PSAT1	phosphoserine aminotransferase 1	-1.29	2.94E-09	1.38E-11	-1.20E+01
GOLGB1	golgin B1	-1.29	6.88E-09	3.87E-11	-1.14E+01



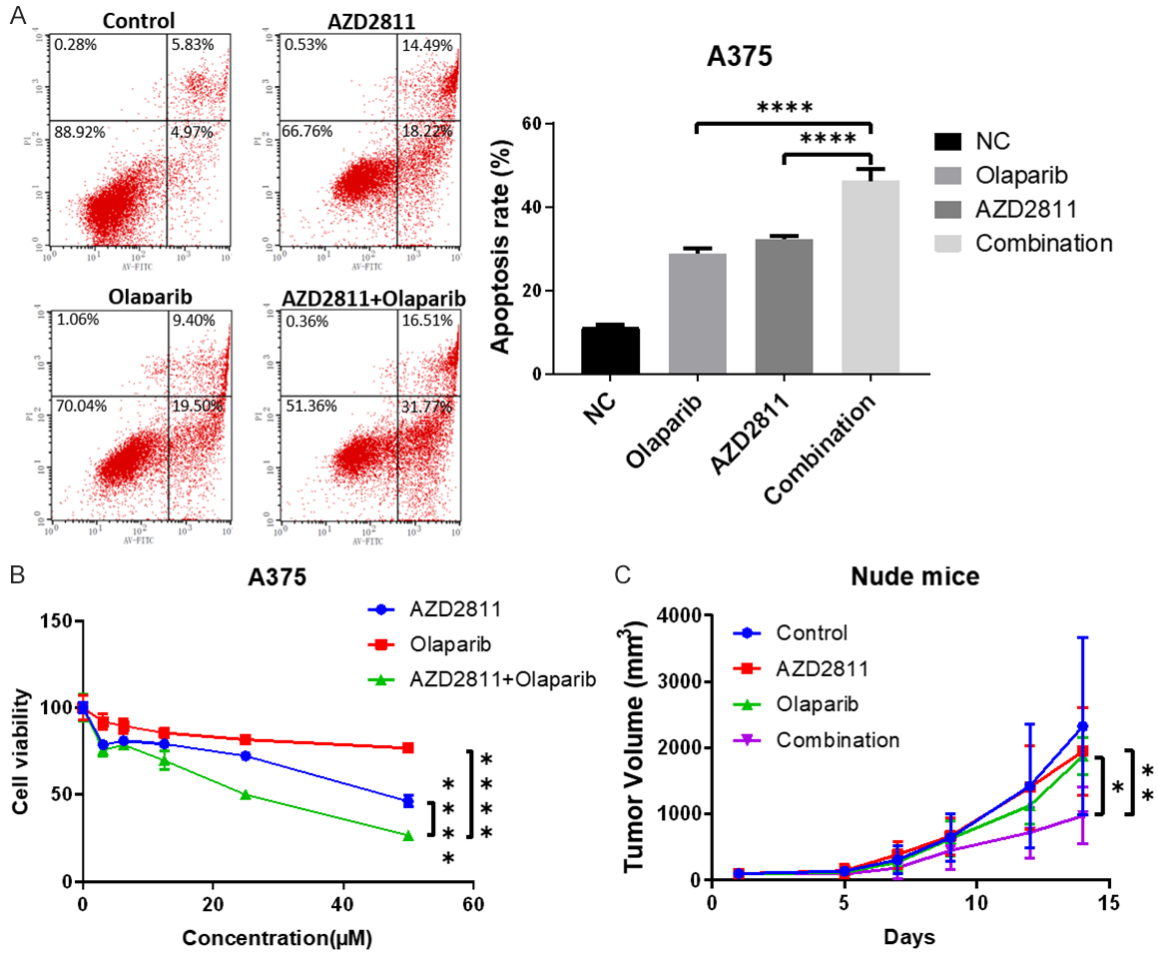
## Targeting AURKB for SKCM treatment

MCF2L	MCF.2 cell line derived transforming sequence like	-1.27	1.01E-10	1.82E-13	-1.48E+01
LBH	limb bud and heart development	-1.27	2.10E-10	4.56E-13	-1.41E+01
TAC1	tachykinin precursor 1	-1.23	1.73E-10	3.48E-13	-1.43E+01
COG6	component of oligomeric golgi complex 6	-1.22	1.07E-10	1.96E-13	-1.47E+01
RFTN2	raftlin family member 2	-1.21	4.79E-11	7.49E-14	-1.54E+01
ENPP2	ectonucleotide pyrophosphatase/phosphodiesterase 2	-1.21	1.73E-10	3.54E-13	-1.43E+01
TRIM9	tripartite motif containing 9	-1.21	2.04E-10	4.38E-13	-1.42E+01
SCRG1	stimulator of chondrogenesis 1	-1.21	6.20E-10	1.91E-12	-1.32E+01
FAM198B	family with sequence similarity 198 member B	-1.2	2.11E-09	9.05E-12	-1.23E+01
CYFIP2	cytoplasmic FMR1 interacting protein 2	-1.18	1.73E-10	3.49E-13	-1.43E+01
TRIM51	tripartite motif-containing 51	-1.16	1.75E-10	3.63E-13	-1.43E+01
PRR4	proline rich 4 (lacrimal)	-1.16	1.16E-09	4.15E-12	-1.27E+01
MGP	matrix Gla protein	-1.15	2.42E-09	1.09E-11	-1.22E+01
MEG3	maternally expressed 3 (non-protein coding)	-1.15	3.40E-09	1.67E-11	-1.19E+01
SEC24D	SEC24 homolog D, COPII coat complex component	-1.15	5.53E-09	2.97E-11	-1.16E+01
PDGFRL	platelet derived growth factor receptor like	-1.14	2.23E-10	5.19E-13	-1.41E+01
LDB2	LIM domain binding 2	-1.14	2.48E-10	5.98E-13	-1.40E+01
SLC22A18	solute carrier family 22 member 18	-1.14	1.75E-09	7.04E-12	-1.24E+01
CHI3L2	chitinase 3 like 2	-1.13	5.43E-10	1.58E-12	-1.33E+01
BRSK1	BR serine/threonine kinase 1	-1.13	5.63E-10	1.70E-12	-1.33E+01
MMP16	matrix metalloproteinase 16	-1.13	3.41E-09	1.68E-11	-1.19E+01
HYOU1	hypoxia up-regulated 1	-1.12	5.63E-10	1.70E-12	-1.33E+01
DHCR7	7-dehydrocholesterol reductase	-1.12	8.32E-10	2.76E-12	-1.30E+01
IRS2	insulin receptor substrate 2	-1.12	1.19E-08	7.70E-11	-1.10E+01
PCK2	phosphoenolpyruvate carboxykinase 2, mitochondrial	-1.12	1.21E-08	7.91E-11	-1.10E+01
SLC2A3	solute carrier family 2 member 3	-1.1	1.00E-08	6.17E-11	-1.12E+01
TRPM8	transient receptor potential cation channel subfamily M member 8	-1.1	1.72E-08	1.24E-10	-1.08E+01
SPATA13	spermatogenesis associated 13	-1.1	8.90E-08	9.16E-10	-9.73
LOXL4	lysyl oxidase like 4	-1.09	2.35E-10	5.57E-13	-1.40E+01
CTH	cystathionine gamma-lyase	-1.09	6.49E-09	3.61E-11	-1.15E+01
STAT2	signal transducer and activator of transcription 2	-1.08	1.31E-09	4.78E-12	-1.26E+01
NCALD	neurocalcin delta	-1.08	2.57E-09	1.17E-11	-1.21E+01
COL9A1	collagen type IX alpha 1 chain	-1.07	1.89E-09	7.91E-12	-1.23E+01
SARS	seryl-tRNA synthetase	-1.07	6.99E-09	3.96E-11	-1.14E+01
COL15A1	collagen type XV alpha 1 chain	-1.06	2.34E-09	1.04E-11	-1.22E+01

## Targeting AURKB for SKCM treatment

INMT	indolethylamine N-methyltransferase	-1.06	6.38E-09	3.54E-11	-1.15E+01
SYVN1	synoviolin 1	-1.05	9.34E-10	3.19E-12	-1.29E+01
SCN4B	sodium voltage-gated channel beta subunit 4	-1.05	2.50E-09	1.13E-11	-1.21E+01
CBS	cystathionine-beta-synthase	-1.05	1.08E-08	6.80E-11	-1.11E+01
PMP2	peripheral myelin protein 2	-1.05	1.61E-08	1.13E-10	-1.08E+01
TMEM39A	transmembrane protein 39A	-1.05	4.73E-08	4.12E-10	-1.01E+01
CAMK2B	calcium/calmodulin dependent protein kinase II beta	-1.04	7.02E-10	2.24E-12	-1.31E+01
YPEL5	yippee like 5	-1.04	7.31E-10	2.40E-12	-1.31E+01
MAGED2	MAGE family member D2	-1.04	1.02E-09	3.57E-12	-1.28E+01
CRELD2	cysteine rich with EGF like domains 2	-1.04	1.32E-09	4.84E-12	-1.26E+01
MXD4	MAX dimerization protein 4	-1.04	4.90E-09	2.54E-11	-1.17E+01
TRIL	TLR4 interactor with leucine rich repeats	-1.04	5.36E-09	2.84E-11	-1.16E+01
SPATA18	spermatogenesis associated 18	-1.04	1.30E-08	8.62E-11	-1.10E+01
NPPC	natriuretic peptide C	-1.04	2.16E-08	1.64E-10	-1.06E+01
TMED10	transmembrane p24 trafficking protein 10	-1.04	2.97E-08	2.38E-10	-1.04E+01
ZMAT3	zinc finger matrin-type 3	-1.03	1.86E-09	7.76E-12	-1.24E+01
SC5D	sterol-C5-desaturase	-1.03	2.66E-09	1.24E-11	-1.21E+01
KANK1	KN motif and ankyrin repeat domains 1	-1.02	1.78E-08	1.29E-10	-1.08E+01
NINJ2	ninjurin 2	-1.01	1.82E-09	7.48E-12	-1.24E+01
ARMCX3	armadillo repeat containing, X-linked 3	-1.01	2.94E-09	1.38E-11	-1.20E+01
SDF2L1	stromal cell derived factor 2 like 1	-1.01	8.44E-09	5.10E-11	-1.13E+01
SEMA5A	semaphorin 5A	-1.01	1.19E-08	7.75E-11	-1.10E+01
SSPO	SCO-spondin	-1.01	1.92E-08	1.43E-10	-1.07E+01

## Targeting AURKB for SKCM treatment



**Supplementary Figure 1.** Anti-melanoma effect from the combination of PARPi and AURKB inhibition validated in A375 cell line and nude mice model. A. Flow cytometry analysis in A375 cells treated with AZD2811, Olaparib and AZD2811+Olaparib, and percentage of apoptotic A375 cells are shown. Data represent means  $\pm$  SD. \*\*\*\* $P < 0.0001$ . B. The cell viability of A375 cells by MTS cell proliferation assay. Data represent means  $\pm$  SD. \*\*\*\* $P < 0.0001$ . C. The tumor size in the control group and the medicated groups of nude mice. Saline solution (control), AZD2811 only, Olaparib only and AZD2811+Olaparib were administered to nude mice with skin cutaneous melanoma. Data represent means  $\pm$  SD. \* $P < 0.05$ . \*\* $P < 0.005$ .