

Table S1. Examples of oncomirs implicated in colorectal cancer (CRC).

Oncomirs (high expression in CRC)			
MiRNA	Target	Function	Reference
miR-20a	ASK1	Resistance to cisplatin	[1]
miR-21	PNRC2	Stimulates proliferation, invasion, migration, EMT	[2]
	DUSP8	Stimulates proliferation and migration	[3]
	RASA1	Induces proliferation and migration	[4]
	TLR2	Increases expression of inflammatory mediators	[5]
miR-22-3p	PTEN, WNT5A	Promotes metastasis	[6]
miR-26b	GSK3 β	Promotes metastasis	[7]
miR-27a-3p	TLR4	Increases expression of inflammatory mediators	[5]
miR-28-5p	PTEN	Enhances cell proliferation, migration, and invasion; attenuates apoptosis	[8]
	BMP5	Promotes cell proliferation and migration	[9]
	TOB1	Attenuates radiosensitivity; stimulates migration and invasion	[10]
	TLR4	Increases expression of inflammatory mediators	[5]
miR-34a-5p	SMAD7, DKK3, KLF4	Enhances proliferation, migration, and invasion	[11]
miR-92a	p57	Stimulates cell proliferation; inhibits apoptosis	[12]
	GSK3 β	Promotes metastasis	[7]
miR-92b-3p	PDCD4	Promotes EMT-mediated migration, invasion, and metastasis	[13]
miR-106b	FOXO4	Promotes EMT	[14]
miR-128-3p	TXNIP	Stimulates proliferation, apoptosis, migration, invasion, and angiogenesis	[15]
miR-135b	IL-6	Increases expression of inflammatory mediators	[5]
	KLF-6	Stimulates proliferation and migration	[16]
miR-142-5p	FAM107A	Enhances proliferation, migration, and invasion	[17]
miR-146b	TP53	Stimulates proliferation and cell cycle progression; inhibits apoptosis	[18]
miR-150-5p	SRCIN1	Increases angiogenesis	[19]
miR-181a	DAB2IP	Promotes proliferation, invasion and tumor growth	[20]
	FOXO3A	Stimulates cell cycle progression	[21]
	SOC3	Stimulates proliferation and cell cycle progression; inhibits apoptosis	[22]
miR-183-5p	ATG5	Increases radioresistance	[23]
	PTEN	Enhances cell proliferation and cell cycle progression	[24]
miR-202-5p	PDE4D	Promotes proliferation and migration	[25]
miR-203a-3p	PDCD4	Promotes tumor growth and reduces oxaliplatin sensitivity	[26]
miR-208b	CELF2	Promotes cell cycle progression and proliferation	[27]
miR-210-3p	ATF3	Enhances tumor growth and immune escape	[28]
miR-222	CK18	Promotes EMT	[29]
miR-325-3p	RASA1	Promotes migration, invasion, and EMT	[30]
miR-335-5p	TRAF3	Inhibits apoptosis and facilitates proliferation	[31]
miR-361-3p	LATS2	Promotes proliferation, invasion, and migration	[32]
miR-372-3p	SCN4B	Promotes proliferation and metastasis	[33]
miR-424-5p	PKN2, DUSP6	Inhibits apoptosis; promotes proliferation, and fluorouracil resistance	[34]
miR-452-5p	PTEN	Oxaliplatin resistance	[35]
miR-454-3p	APC	Facilitates proliferation	[36]
miR-494	PDCD4	Induces proliferation, invasion, and migration; inhibits apoptosis	[37]
miR-503-5p	RASSF8	Methotrexate resistance; stimulates migration and invasion; inhibits apoptosis	[38]
miR-505	NKD1	Promotes invasion and metastasis	[39]
miR-532	PLAS3	Enhances migration and invasion	[40]
miR-543	PTEN	Oxaliplatin resistance	[41]
	TGF- β 1	Reduces apoptosis; increases proliferation	[42]
miR-574-3p	SPARC	Promotes proliferation, invasion, and migration	[43]
miR-592	CXXC4	Stimulates proliferation and migration; represses apoptosis and fluorouracil sensitivity	[44]
miR-629-5p			

miR-645	EFNA5	Stimulates tumor growth, invasiveness, and metastasis	[45]
miR-663b	TNK1	Enhances stemness and proliferation	[46]
miR-744	BIN1	Oxaliplatin resistance	[47]
miR-885-5p	SOCS5, SOCS6, SOCS7	Stimulates proliferation, migration, and EMT	[48]
miR-942-5p	BATF2	Stimulates colony-forming ability, migration, and invasion; reduces apoptosis	[49]
miR-1246	GSK3 β	Promotes metastasis	[7]
miR-4449	SOCS3	Stimulates proliferation; inhibits apoptosis	[50]
miR-4474	CREBP	Promotes metastasis	[51]
miR-4717	CREBP	Promotes metastasis	[51]

Table S2. Examples of suppressor miRNAs involved in colorectal cancer (CRC).

Suppressor miRs (low expression in CRC)			
MiRNA	Target	Function	Reference
miR-1-3p	YWHAZ	Inhibits proliferation and metastasis	[52]
miR-9-5p	STMN1	Inhibits migration and invasion; stimulates apoptosis	[53]
	ATF1	Inhibits proliferation, migration, and invasion; stimulates apoptosis	[54]
miR-10b	FGF13	Inhibits growth, colony formation, migration and invasion	[55]
	PIK3CA	Activates cancer associated fibroblasts	[56]
miR-18a*	ULK1	Oxaliplatin and fluorouracil sensitivity	[57]
miR-19a	KRAS	Reduces vessels formation and tumor size	[58]
miR-26a-3p	SRSF6	Inhibits proliferation and stimulate apoptosis	[59]
miR-29a-3p	RPS15A	Inhibits proliferation; induces cell cycle arrest and apoptosis	[60]
miR-29b	SIRT1	Oxaliplatin sensitivity	[61]
miR-30c	BCL9	Inhibits proliferation	[62]
miR-34a	LOXL3	Inhibits EMT, migration and invasion	[63]
miR-34b	SOX4	Reduces invasion and migration	[64]
miR-93	HMGB3	Reduces proliferation, invasion, migration, and increases apoptosis	[65]
miR-93-5p	TGF- β	Inhibits proliferation and invasion, stimulate apoptosis	[66]
miR-101	EZH2	Inhibits migration	[67]
miR-106a	FOXQ1	Oxaliplatin sensitivity	[68]
miR-107	TFR1	Suppresses proliferation, migration, and invasion	[69]
	MCM7	Inhibits proliferation, and promotes apoptosis	[70]
miR-124-3p	CD44	Inhibits proliferation	[71]
	PD-L1	Inhibits proliferation, migration, invasion; induces cell cycle arrest and apoptosis	[72]
miR-125	TAZ	Inhibits proliferation and invasion	[73]
miR-125b-2-3p	WEE1	Decreases proliferation and metastasis, increases oxaliplatin sensitivity	[74]
miR-126-5p	PAK2, FZD3	Inhibits proliferation and promotes apoptosis	[75]
miR-128	B7-H3	Inhibits proliferation and migration	[76]
miR-128-5p	SRSF6	Inhibits proliferation and promotes apoptosis	[59]
miR-129	SOX4	Inhibits proliferation, migration, invasion and EMT	[77]
miR-132	ERK1	Inhibits proliferation; induces apoptosis, and reduces adriamycin resistance	[78]
miR-132-3p	USP11	Suppresses cell growth, metastasis, and promotes apoptosis	[79]
	CREB5	Inhibits proliferation, migration, metastasis, and enhances apoptosis	[80]
miR-138-5p	MACC1	Suppresses proliferation, migration, and invasion; promotes apoptosis	[81]
miR-139	EIF4G2	Reduces proliferation and promotes apoptosis	[82]
miR-139-5p	MET	Reduces proliferation and migration	[83]
miR-140-3p	BCL2, BCL9	Suppresses proliferation, migration, invasion, and promotes apoptosis	[84]
miR-141-3p	ZEB1, ZEB2	Inhibits EMT, migration, and invasion	[85]
	TRAF	Inhibits proliferation, migration, and invasion	[86]
miR-142-3p	CTNNB1	Reduces proliferation and colony formation	[87]
miR-143-3p	KLF5	Reduces proliferation, promotes apoptosis	[88]
miR-144	EZH2	Inhibits invasion	[89]
miR-144-3p	BCL6	Inhibits proliferation and induces cell cycle arrest	[90]

miR-145-5p	CDCA3	Suppresses cell viability, cell cycle progression, migration, invasion, and EMT	[91]
miR-146a	RIPK2, TRAF6, PTGES2	Decreases tumorigenic inflammation	[92]
miR-148a	ERBB3	Inhibits proliferation, migration, and invasion	[93]
miR-150	CTNNB1	Decreases proliferation and tumor size	[94]
miR-150-5p	LRG1	Suppresses proliferation, migration, and EMT; promotes apoptosis	[95]
	VEGF	Suppresses proliferation, migration, invasion and angiogenesis	[96]
miR-185-3p	NRP1	Inhibits migration, invasion, and metastasis	[97]
miR-193a-5p	SENP1	Inhibits proliferation, migration, and invasion	[98]
miR-194-5p	SOX5	Suppresses proliferation, migration, and invasion	[99]
miR-195-5p	FZD4	Inhibits proliferation, migration, invasion, and enhances apoptosis	[100]
miR-199a	HIF-1 α	Decreases proliferation, migration, and invasion	[101]
miR-199a-5p	CAC1	Suppresses cell growth and induce chemosensitivity	[102]
miR-200c	BMI1	Inhibits invasion and promotes apoptosis	[103]
miR-202	UHRF1	Inhibits proliferation and invasion	[104]
miR-203	NEDD9	Inhibits proliferation, colony formation, invasion, and induces apoptosis	[105]
	RNF6	Suppresses proliferation and cell cycle progression	[106]
miR-211-5p	ERBB4	Inhibits proliferation, colony formation; induces apoptosis and radiosensitivity	[107]
miR-214-3p	CTNNB1	Suppresses growth, migration and invasion; stimulates apoptosis	[108]
miR-216b	SRPK1	Suppresses proliferation, cell cycle progression, migration, and invasion	[109]
miR-296-5p	STAT3	Inhibits proliferation and promotes apoptosis	[110]
	MSI1	Reduces proliferation; induces cell cycle arrest, apoptosis, and radiosensitivity	[111]
miR-320a	SP1	Inhibits cell growth and invasion	[112]
	GMEB1	Inhibits EMT, migration, and invasion	[113]
miR-325	HSPA12B	Oxaliplatin sensitivity	[114]
miR-328-5p	LOXL2	Fluorouracil sensitivity	[115]
miR-331-3p	NRP2	Suppresses migration, invasion, and EMT	[116]
miR-335-5p	LDHB	Inhibits proliferation, migration, and invasion	[117]
miR-338-5p	PAX5	Inhibits proliferation, migration and invasion; induces apoptosis	[118]
miR-340-5p	ANXA3	Inhibits proliferation, migration, and invasion	[119]
miR-363-3p	CXCL5	Inhibits proliferation, migration, and invasion	[120]
	SPHK2	Inhibits proliferation and metastasis; promotes apoptosis	[121]
miR-375	SP1	Inhibits proliferation	[122]
miR-378a-5p	CDK1	Inhibits proliferation	[123]
miR-381-3p	RAB11FIP2	Reduces proliferation, migration, tumor size, and liver metastasis	[124]
miR-382	KLF12, HIPK3	Inhibits proliferation, migration, and invasion; enhances cisplatin sensitivity	[125]
miR-382-5p	EN2	Inhibits proliferation, migration, invasion, and EMT	[126]
miR-429	HMGB3	Decreases proliferation and increases apoptosis	[127]
miR-431	CUL4B	Inhibits EMT, migration, and invasion	[128]
miR-455-5p	PIK3R1	Inhibits proliferation and migration; promotes apoptosis	[129]
miR-485-3p	PDL1	Inhibits proliferation, migration, invasion, and immune escape; promotes apoptosis	[130]
miR-485-5p	SLC38A1	Inhibits colony formation, migration, invasion, glutaminolysis; induces apoptosis	[131]
miR-490-3p	TNKS2	Suppresses migration and invasion; enhances cisplatin and fluorouracil sensitivity	[132]
miR-491	FOXP4	Inhibits proliferation	[133]
miR-495	SP1, SP3	Reduces proliferation, migration, invasion, angiogenesis, and fluorouracil resistance	[134]
	IL-6	Decreases proliferation, migration, invasion, and tumor size	[135]
miR-497-5p	BTF3	Reduces proliferation, migration, and invasion	[136]
miR-519d	CCND1	Fluorouracil sensitivity	[137]
miR-526b-3p	KLF12	Cisplatin sensitivity	[138]
miR-542	BIRC5	Reduces proliferation; induces cell cycle arrest and apoptosis	[82]
miR-590	CDK1	Reduces viability, cell cycle progression, colony formation, and tumor growth	[139]
miR-615-5p	LARP1	Reduces proliferation, migration and invasion; enhances apoptosis	[140]
miR-646	RAB11FIP2	Reduces proliferation, migration, tumor size, and liver metastasis	[124]
miR-654-3p	SRC	Suppresses proliferation and migration; induces cell cycle arrest and apoptosis	[141]

miR-637	WNT1	Inhibits migration, invasion, and induces apoptosis	[142]
miR-761	HDGF	Suppresses tumor growth and induces apoptosis	[143]
	HDAC1	Inhibits proliferation and invasion	[144]
miR-769	HEY1	Inhibits proliferation, cell cycle progression, and invasion	[145]
miR-802	RAN	Inhibits viability, migration, and invasion	[146]
miR-874-3p	GDPD5	Reduces proliferation; induces apoptosis and ferroptosis	[147]
	FOXM1	Inhibits proliferation, invasion, and glycolysis	[148]
miR-944	GATA6	Suppresses EMT, migration, and invasion	[149]
	FZD7	Doxorubicin sensitivity	[150]
	COP1, MDM2	Inhibits cell cycle progression and tumor growth	[151]
miR-1205	TRIM44	Inhibits proliferation, cell cycle progression, metastasis, and promotes apoptosis	[152]
miR-1225	GPR15	Inhibits proliferation, migration, and invasion; induces apoptosis	[153]
miR-1278	KIF5B, CYP24A1	Inhibits proliferation and migration; increases oxaliplatin and calcitriol sensitivity	[154]
miR-1301	STAT3	Suppresses migration and invasion	[155]
miR-1306	VIM	Inhibits cell cycle, proliferation, migration, and invasion	[156]
miR-3666	SATB2	Inhibits proliferation, migration, and invasion	[157]
miR-4319	ABTB1	Suppresses proliferation, cell cycle progression, migration, and invasion	[158]
miR-4324	HOXB2	Suppresses proliferation, migration, and invasion	[159]
miR-4429	FOXM1	Inhibits proliferation, migration, invasion, and EMT	[160]
miR-4802	ATG7	Oxaliplatin and fluorouracil sensitivity	[57]
miR-6887	MEX3A	Inhibits proliferation, migration, and invasion	[161]

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