Supplementary table 2. Ferroptosis-inhibitors/suppressors.

Associated disease/condition	miRNA	Target	Effect in ferroptosis-mechanisms	Reference
Acute myeloid leukemia	miR-let-7b-5p	P53	Decreases lipid ROS	(1)
Cervical cancer	miR-4291	ACSL4	Increases GSH. Decreases MDA, ROS	(2)
Colorectal cancer	miR-19a	IREB2	Decreases ROS. Probably decreases iron accumulation	(3)
Colorectal cancer	miR-545	TF	Decreases MDA, ROS, and Fe2+	(4)
Esophageal cancer	miR-27a-3p	TNPO1	Increases GPX4	(5)
Esophageal cancer	miR-372-3p	ADAM23	Decreases ROS and lipid peroxidation	(6)
Gastric Cancer	miR-522	ALOX15	Decreases lipid ROS accumulation	(7)
Glioblastoma	miR-18a	ALOXE3	Decreases lipid peroxides	(8)
Glioblastoma	miR-670-3p	ACSL4	Decreases lipid peroxidation	(9)
Head and neck cancer	miR-200	SIRT1, ZEB1	Decreases lipid peroxidation, ROS, total iron and Fe2+	(10)
Hepatocellular carcinoma	mir-23a-3p	ACSL4	Decreases lipid peroxidation	(11)
Hepatocellular carcinoma	miR-362-3p	MIOX	Decreases MDA, lipid ROS, and Fe2+	(12)
Lung adenocarcinoma	miR-17-5p	HOXA7	Probably decreases ferroptosis	(13)
Lung adenocarcinoma	miR-6077	CDKN1A, KEAP1	Increases NRF2, SLC7A11, NQ01 expression. Decreases lipid peroxidation	(14)
Lung cancer	miR-19b-3p	FTH1	Increases Fe2+	(15)
Lung cancer	miR-27a-3p	SLC7A11	Decreases MDA, and Fe2+	(16)
Lung cancer	miR-367-3p	TFRC		(17)
Lung carcinoma	miR-4443	METTL3	Decreases ROS and Fe2+	(18)
Melanoma	miR-9	GOT1	Decreases lipid ROS. Inhibitis glutaminolysis process	(19)
Melanoma	miR-130b-3p	DKK1	Decreases lipid peroxidation and Fe2+ due to activation of NRF2/HO-1 pathway	(20)
Melanoma	miR-137	SLC1A5	Decreases of glutamine uptake, iron, MDA, lipid peroxidation	(21)
Ovarian cancer	miR-424-5p	ACSL4	Decreases lipid peroxidation	(22)
Radioresistant cervical cancer	miR-7-5p	ALOX12	Decreases Fe2+, ROS, lipid peroxidation	(23)
Radioresistant cervical/oral squamous cell carcinoma	miR-7-5p	SLC25A37	Decreases intracellular Fe2+, mitochondrial Fe2+, ROS	(24)
Acute cerebral infarction	miR-3098-3p	ACSL4	Decreases Fe2+, MDA, TFR1. Increases GPX4, GSH	(25)
Acute ischemic stroke	miR-214	TP53, TFR1	Decreases p53 levels increases SLC7A11 levels. Through TFR1 decreases iron	(26)
Acute liver injury	miR-15a	ALOX12	Decreases lipid peroxidation probably through GPX4 axis	(27)
Congenital heart disease	miR-193a-3p	TGF-β2	Decreases lipid ROS, MDA, Fe2+	(28)
Diabetic retinopathy	miR-7-5p	ACSL4	Decreases ACSL4 expression	(29)
Diabetic retinopathy	miR-200b-3p	CFL2	Increases GSH, decreases MDA and iron	(30)
Doxorubicin-induced cardiac injury	miR-7-5p	TFRC	Decreases iron import and ROS generation	(31)
Exposure to benzene	miR-142-5p	CUL4B	Increases expression of GPX4	(32)
Ferroptosis in endothelial cells	miR-30e-5p	SP1	Increases GSH. Decreases lipid ROS, MDA, iron	(33)
Hypoxia	miR-6862-5p	NCOA4	Decreases NCOA4. Increases FTMT promoting iron store	(34)
Intervertebral disc degeneration	miR-10a-5p	IL-6R	Decreases ROS and iron promoting GPX4 and ferroportin-1	(35)
Intervertebral disc degeneration	miR-874-3p	ATF3	Decreases ROS	(36)
Intracerebral hemorrhage	miR-106b-5p	ACSL4	Decreases iron, MDA, lipid peroxidation. Increased GSH	(37)
Ischemia diseases	miR-17-92	A20, ACSL4	Decreases lipid peroxidation	(38)
Ischemic stroke, hemorrhagic stroke	miR-137	COX2	Decreases ROS, increases GPX4 and GSH	(39)

Liver fibrosis	miR-222	TFRC	Decreases TFRC receptor, iron, ROS	(36)
Parkinson's disease	miR-150-5p	BAP1	Decreases ROS, MDA and Fe2+	(40)
Periodontitis	miR-370	TFRC	Decreases TFRC expression	(41)
Preeclampsia	miR-2115-3p	GOT1	Increases expression of GPX4 and SCL7A11	(42)
Pulmonary fibrosis	miR-150-5p	SLC38A1	Increases GPX4 expression. Decreases MDA, lipid peroxidatin	(43)
Vascular adventitial fibroblasts in cardiovascular remodeling	miR-124	SERTAD4	Decreases ROS, MDA and Fe2+	(44)

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Associated disease/condition	miRNA	Target	Effect in ferroptosis-mechanisms	Reference
Acute lymphoblastic leukemia	miR-494-3p	NET1	Promoted Erastin-induced elevation of iron concentration and lipid ROS	(1)
Bladder cancer	miR-129-5p	PROM2	Probably restores normal iron metabolism promoting ferroptosis in cancer cells	(2)
Breast cancer	miR-106a-5p	STAT3	Increases the levels of ROS, total iron and Fe2+	(3)
Breast cancer	miR-5096	SLC7A11	Increases iron, ROS, lipid ROS. Decreases GSH and mitochondrial membrane potential	(4)
Breast cancer	miR-324-3p	GPX4	Increases Fe2+, lipid ROS, lipid peroxidation	(5)
Breast cancer	miR-410-3p	EMC2	Probably increases ferroptosis	(6)
Breast cancer	miR-1228	AIFM2	Decreases GSH/GSSG ratio and GPX4	(7)
Cervical cancer	miR-375, miR-409-3p, miR-515-5p	SLC7A11	Inhibition of system xc−. Increases lipid peroxidation	(8)
Cervical cancer	miR-193a-5p	GPX4	Decreases GPX4 expression. Increases lipid ROS, iron, Fe2+	(9)
Cervical cancer	miR-506-3p	CD164	Increases lipid ROS, MDA and iron and decreases GSH	(10)
Colon cancer	miR-28-5p	N4BP1	Decreases GSH and GPX, increases MDA and iron	(11)
Colon cancer	miR-423-5p	SCD1	Increases lipid ROS	(12)
Colorectal cancer	miR-874-3p	GDPD5	Increases RSL3-induced ferroptosis, iron, Fe2+, MDA, lipid ROS	(13)
Colorectal cancer	miR-539	TIPE	Decreases GPX4. Increases ROS and lipid ROS	(14)
Colorectal cancer	miR-15a-3p	GPX4	Increases ROS, Fe2+, MDA	(15)
Esophageal cancer	miR-30a-5p	FZD3	Increases ROS, MDA, iron. Decreases GPX4 and SLC7A11	(16)
Esophageal squamous cell cancer	miR-513a-3p	SLC7A11	Increases ROS	(17)
Gastric cancer	miR-375	SLC7A11	Increases lipid peroxidation	(18)
Gastric cancer	miR-375	SLC7A11	Increases lipid peroxidation and Fe2+	(19)
Gastric cancer	miR-489-3p	SLC7A11	Increases lipid peroxidation and Fe2+	(20)
Gastrointestinal cancer	miR-4715-3p	AURKA	Decreases GPX4	(21)
Glioblastoma	miR-27a-3p	FANCD2, CD44	Increases iron and lipid ROS	(22)
Glioblastoma	miR-147a	SLC40A1	Increases iron overload and lipid peroxidation	(23)
Glioma	miR-761	ITGB8	Increases Fe2+, lipid ROS	(24)
Glioma	miR-3938	PDGFRA	Increases Fe2+, ROS	(25)
Glioma	miR-29b	GPX7	Increases lipid peroxidation. Decreases system xc- activity, and GSH synthesis	(26)
Hemangioma	miR-497-5p	NOTCH2	Increases MDA	(27)
Hepatocellular carcinoma	miR-541-3p	GPX4	Increases Fe2+, lipid ROS, MDA, lipid peroxidation	(28)
Hepatocellular carcinoma	miR-1261	SLC7A11	Inhibits of system Xc- and decreases GPX4 activity	(29)
Hepatocellular carcinoma	miR-3200-5p	ATF4	Increases ROS, Fe2+. Decreases GPX4	(30)
Hepatocellular carcinoma	miR-142-3p	SLC3A2	Increases MDA and Fe2+. Decreases GSH	(31)
Liver cancer	miR-214-3p	ATF4	Increases MDA, ROS, iron, Fe2+, erastin-induced ferroptosis. Decreases GSH	(32)
Liver cancer	miR-214-3p	GPX4	Increases Fe2+, lipid ROS, MDA, lipid peroxidation	(33)
Liver cancer	miR-142-3p	SLC3A2	Decreases GSH, FTH1, GPX4, ATF4, system Xc- activity. Increases TfR1, lipid peroxidation	(34)
Lung adenocarcinoma	miR-324-3p	GPX4	Increases ROS, MDA. Decreases GSH	(35)
Lung adenocarcinoma	miR-101-3p	CISD1	Probably increases ferroptosis	(36)

Endometriosis	miR-145-5p	MUC1	Increases Fe2+, lipid peroxidation and erastin-induced ferroptosis	(70)
Endometriosis	miR-6516-5p	GPX4	Decreases expression of GPX4	(71)
High glucose-induced ferroptosis	miR-138-5p	SIRT1/NRF2	Increases ROS and lipid peroxidation. Decreases GPX4	(72)
Intervertebral Disc Degeneration	miR-665	GPX4	Increases ROS, lipid peroxidation and iron	(73)
Intracerebral hemorrhage	miR-124	FPN	Increases iron accumulation	(74)
Myocardial ischemia-reperfusion injury	miR-143-3p	SLC7A11	Increases ROS, MDA and iron	(75)
Nerve injury caused by lead exposure	miR-378a-3p	SLC7A11	Increases Fe2+, MDA, ROS. Decreases GSH	(76)
Preeclampsia	miR-30-5p	SLC7A11, PAX3	Decreases FPN1, GSH, GPX activity. Increases Fe2+, MDA	(77)
Renal ischemia-reperfusion	miR-3587	HMOX1	Decreases HO-1, and GPX4 expression. Increases MDA and Fe2+	(78)
Sepsis-associated acute renal injury	miR-124-3p.1	LPCAT3	Probably through increase of lipid peroxidation	(79)

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