

Table S7 (exo-MIRs)

Homeostasis

Positive implications

miRNA (Cell/Exo)	Functional indication	Target	Reference
miR-21 -3p (29/1) -5p (1/1)	Prevent cardiomyocyte apoptosis Inhibit apoptosis and oxidative stress (OS)	PDCD4	(Xiao et al, 2016) (Young et al., 2020)
miR-126-3p (1/18)	Pro-angiogenic function in AMI miR-126 enriched exosomes /therapeutic against AMI	ERRFI1	(Wang et al., 2019) (Luo et al., 2017)
miR-146a-5p (1/1)	Attenuate oxidative stress (OS) in cardiomyocytes Protect against ischemia/reperfusion (Lung) Protect against renal ischemia/reperfusion (Kidney)	IRAK1 IRAK1	(Milano et al., 2020) (Li et al., 2019) (Li et al., 2020)
miR-210 (12/1)	Alleviate Endothelial Oxidative Stress Regulates stress-induction	Nox2	(Liu et al., 2017) (Day et al., 2019)
miR-935 (2/1)	Favors prolif /different (BMSC-exo) of osteoblasts	STAT1	(Zhang et al., 2021)

Negative role

miRNA (Cell/Exo)	Functional indication	Target	Reference
microRNA-27a -5p (1/1) -3p (1/1.5)	Contribute to oxidative stress (OS)	Nrf2	(Tian et l., 2018)
microRNA-28-3p (7.5/1)	Contributes to oxidative stress (OS)	Nrf2	(Tian et l., 2018)
microRNA-34a -5p (11/1) -3p (32/0)	Contribute to oxidative stress (OS)	Nrf2	(Tian et l., 2018)
miR-146a-5p (1/3)	Aggravates Alzheimer progression; promotes neural cells	OS	(Zhan-Qiang et al., 2021)
miR-1268a (0/95)	Facioscapulohumeral muscular dystrophy in myotubes Gestational diabetes		(Colangelo et al., 2014) (Collares et al., 2013)

Cancer

Promotion

miRNA (Cell/Exo)	Functional indication	Target	Reference
miR-135b-5p (1/2)	Promotion of gastric and pancreatic cancer	KLF4 NR3C2	(Liu et al., 2022) (Zhang et al., 2017)
miR-625-3p (1/7)	Non-small cell lung cancer Mesothelioma		(Du et al., 2020) (Goricar et al., 2021)
miR-935 (2/1)	Gastric cancer Non-small cell lung cancer Clear Cell Renal Cell Carcinoma Non-small cell cancer Glioma Colorectal cancer Colorectal cancer (generic)	SOX7 SOX7 IREB2 IL-27 HIF1 α INPP4A KRAS-dependent sorting	(Yang et al., 2021) (Peng et al., 2017) (Liu et al., 2019) (Abdi et al., 2020) (Huang et al., 2020) (Huang et al., 2019) (Cha et al., 2015)
miR-2110 (0.1/10)	Triple-negative breast cancer		(Zhang et al., 2021)

Inhibition

miRNA (Cell/Exo)	Functional indication	Target	Reference
miR-625-3p (1/8)	Gastric cancer metastasis	EZH2	(Li et al., 2020)
miR-935 (2/1)	Osteosarcoma, inhibits proliferation and invasion Oral Squamous Cell Carcinoma Glioblastoma	HMGB1 INPP4A FZD6	(Liu et al., 2018) (Maruyama et al., 2020) (Zhang et al., 2021)