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Supplemental Information

miR-374a-5p: A New Target for Diagnosis and Drug Resistance Therapy in Gastric Cancer

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Supplementary Table 1. The sequences and modifications of the oligonucleotides.

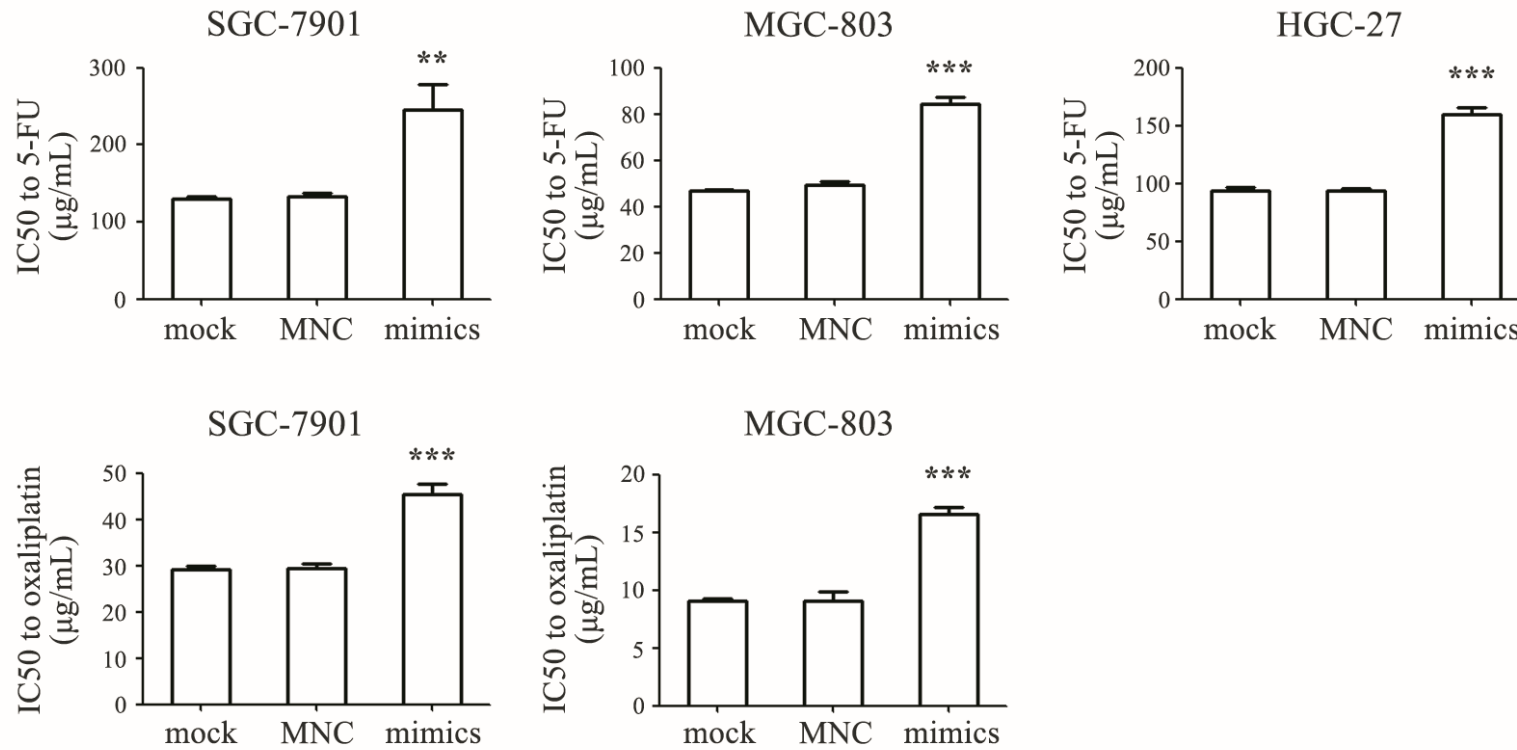
Oligonucleotides	Sequences (5'-3')	Modifications
miR-374a-5p mimics	UUAUAAUACAACCUGAUAAGUG CUUAUCAGGUUGUAUUAUAAUU	“m” represents 2'-O-methyl- modified “s” represents phosphorothioate linkage “Chol” represents linked cholesterol
mimics NC	UUCUCCGAACGUGUCACGUTT ACGUGACACGUUCGGAGAATT	
miR-374a-5p inhibitors	mCmAmCmUmUmAmUmCmAmGmGmUmUmGmUmAmUmUmAmUmAmA	
inhibitors NC	mCmAmGmUmAmCmUmUmUmUmGmUmGmUmAmGmUmAmCmAmA	
Agomir-374a-5p	mU(s)m(s)UmAmUmAmAmUmAmCmAmAmCmCmUmGmAmUmAmA(s)mG(s)mU(s)mG(s)- Chol mC(s)mU(s)mUmAmUmCmAmGmGmUmUmGmUmAmUmUmAmUmA(s)mA(s)mU(s)mU(s)- Chol	
Agomir NC	mU(s)mU(s)mCmUmCmCmGmAmAmCmGmUmGmUmCmAmCmG(s)mU(s)mT(s)mT(s)- Chol	

	mA(s)mC(s)mGmUmGmAmCmAmCmGmUmUmCmGmGmAmGmA(s)mA(s)mT(s)mT(s)- Chol	
Antagomir- 374a-5p	mC(s)mA(s)mCmUmUmAmUmCmAmGmGmUmUmGmUmAmUmUmA(s)mU(s)mA(s)mA(s)- Chol	
Antagomir NC	mC(s)mA(s)mGmUmAmCmUmUmUmUmGmUmGmUmAmGmUmA(s)mC(s)mA(s)mA(s)- Chol	
Si-Neurod1	GCAACUCAAUCCUCGGACUTT AGUCCGAGGAUUGAGUUGCTT	
Scr of si- Neurod1	UUCUCCGAACGUGUCACGUTT ACGUGACACGUUCGGAGAATT	

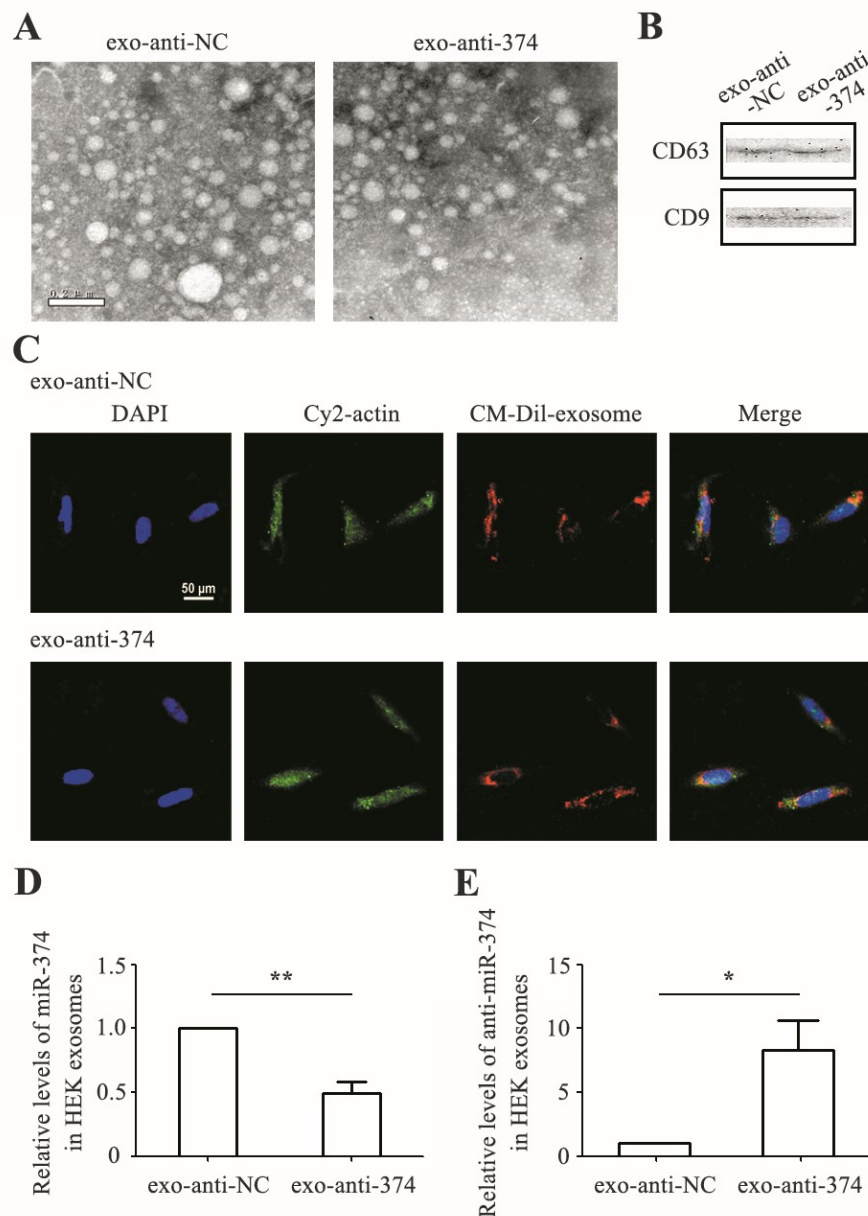
NC: negative control

Supplementary Table 2. Specific primers for target mRNAs.

Primers or oligonucleotides	Sequence (5' to 3')
H-MDR1-F	TCCTGGAGCGGTTCTACGAC
H-MDR1-R	GGCATGTATGTTGGCCTCCT
H-TopoII-F	GGCTTCCTGAGGATTACTTG
H- TopoII-R	GCCACTGATCCAGCTAATTG
H-Neurod-F	GCCACGACACGAGGAATT
H-Neurod-R	TCGCCCATCAGCCCACTCT
H- β -actin-F	CACGAAACTACCTTCAACTCC
H- β -actin-R	CATACTCCTGCTTGCTGATC



Supplementary Figure 1. MiR-374a-5p increased the IC₅₀ of gastric cancer cells (HGC-27, MGC-803, and SGC-7901) to 5-FU and oxaliplatin.



Supplementary Figure 2. The identification of exosomes and the expression of miR-374a-5p and miR-374a-5p inhibitor in exosomes. (A) The morphology of exosomes was observed by transmission electron microscope. Scale bar = 0.2 μ m. (B) Western blot detected the expression of CD63 and CD9. (C) Internalization of exosomes into HGC-27 cells. Exosomes labeled with CM-Dil (red) at 37°C for 1 h were added into HGC-27 cells for 4 h. Cells were fixed and stained for cytoplasm (Cy2-actin, green) and nuclei (DAPI, blue). Original magnification, $\times 200$. Scale bar = 50 μ m. (D, E) The expression of miR-374a-5p and miR-374a-5p inhibitor in exosomes was determined by qRT-PCR.