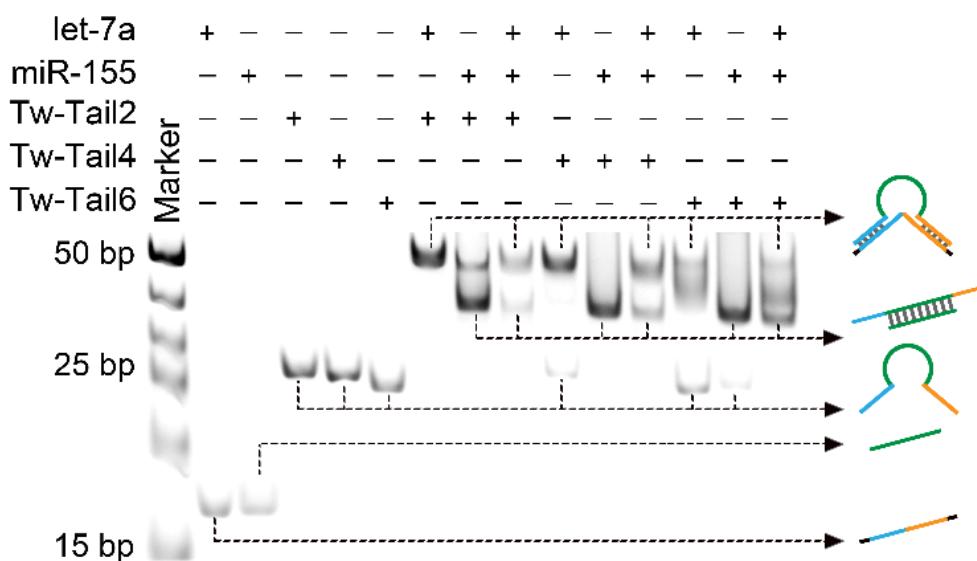


## Supporting Information

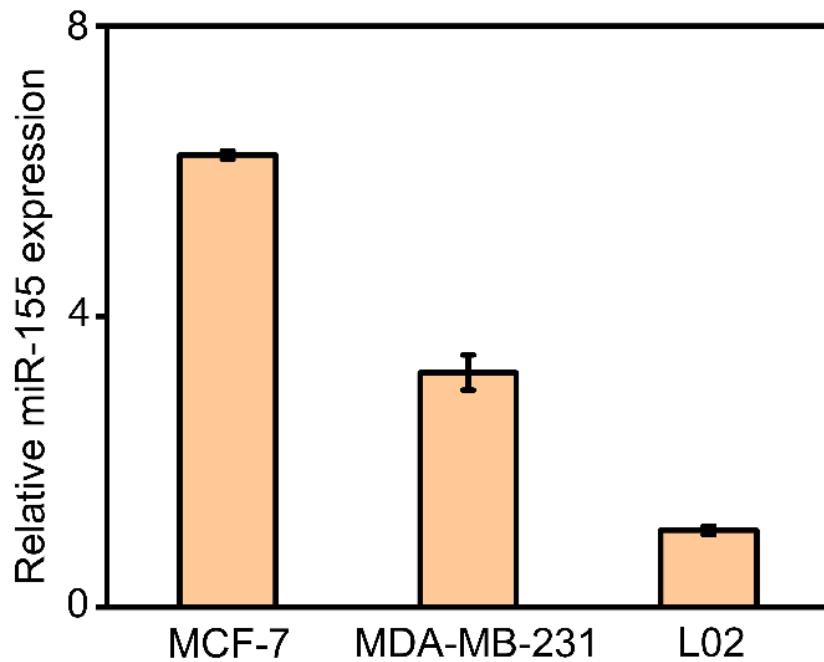
### Smartly responsive DNA-miRNA hybrids packaged in exosome for synergistic enhancement of cancer cell apoptosis

Fan Zhang, Albertina N Isak, Shiqi Yang, Yuchen Song, Lingjie Ren, Chang Feng,\*

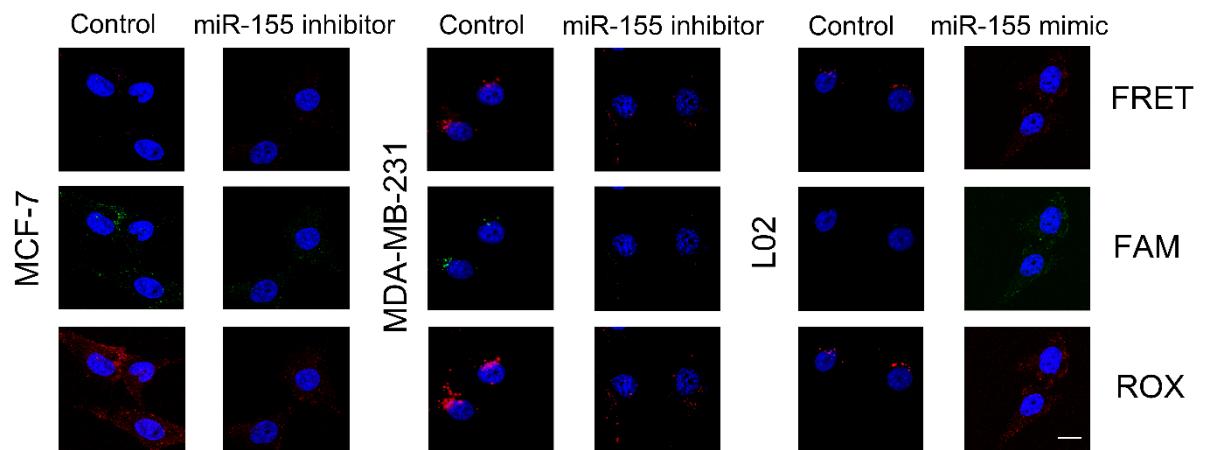
Guifang Chen\*



**Figure S1.** Electrophoretic patterns of the Tw/let-7a hybrid with different lengths of a tail.



**Figure S2.** Relative miR-155 expression of different cells by Quantitative Real-time PCR (qRT-PCR).



**Figure S3.** Fluorescence images of different cells after the treatment of Tw-Gap4/let-7a@Exo. The cells have been pretreated with miR-155 mimic or miR-155 inhibitor. Tw-Gap4 was labeled with ROX; and let-7a was labeled with FAM. The nucleus was stained with DAPI. Images were obtained using LSCM. Scale bar = 20  $\mu$ m.

**Table S1.** Sequences of oligonucleotides.

Oligonucleotides	Sequence (5'-3')
let-7a	UGAGGUAGUAGGUUGUUAUAGUU
let-7a mimic	TGAGGTAGTAGGTTGTATAGTT
Tweezers	AACTATACAACACCCCTATCACAATTAGCATTAACTACTACCTCA
Tweezers-Gap2	AACTATACAAACCCCTATCACAATTAGCATTAACTACCTCA
Tweezers-Gap4	AACTATACAAACCCCTATCACAATTAGCATTAACTACCTCA
Tweezers-Gap6	AACTATACAACACCCCTATCACAATTAGCATTAACTACCTCA
Tweezers-Tail2	ACTATACAACACCCCTATCACAATTAGCATTAACTACTACCTC
Tweezers-Tail4	CTATACAACACCCCTATCACAATTAGCATTAACTACTACCT
Tweezers-Tail6	TATACAACACCCCTATCACAATTAGCATTAACTACTACC
miR155 mimic	UUAAUGCUAUCGUGAUAGGGGUU
miR-155 inhibitor	AACCCCUAUCACGAUUAGCAUUA