

Article

Design and Evaluation of Engineered Extracellular Vesicle (EV)-based Targeting for EGFR-Overexpressing Tumor Cells using Monobody Display

Hiroaki Komuro ^{1,2}, Shakhlo Aminova ^{1,2}, Katherine Lauro ^{1,2}, Daniel Woldring ^{1,3} and Masako Harada ^{1,2 *}

Supplementary Materials:

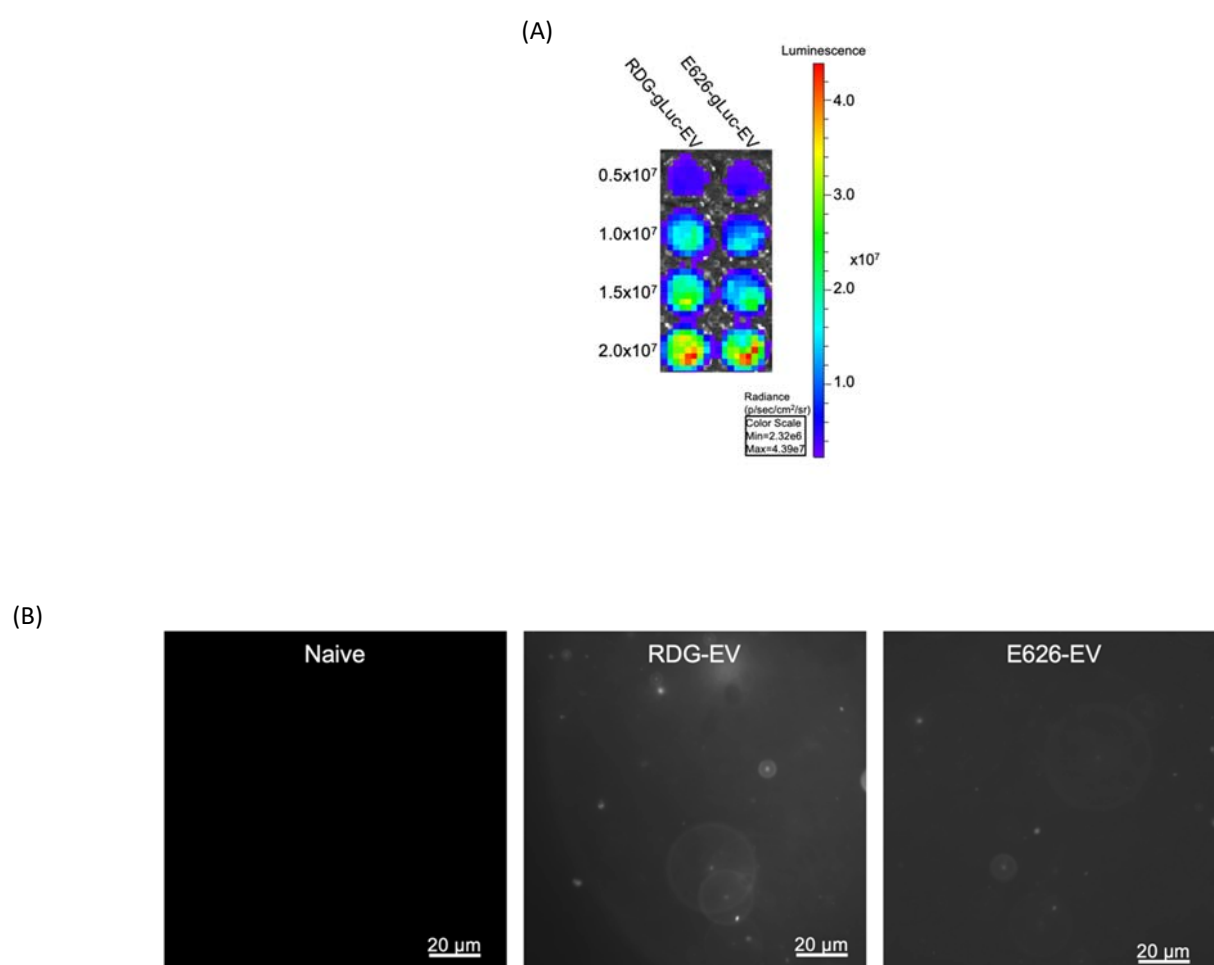


Figure S1. Assessment of EV labeling (A) Bioluminescence radiance measurement of E626-gLuc EVs and RDG-gLuc EVs (B) Direct Fluorescence microscopic image of Naïve EVs, E626-mCherry EVs and RDG-mCherry EVs.

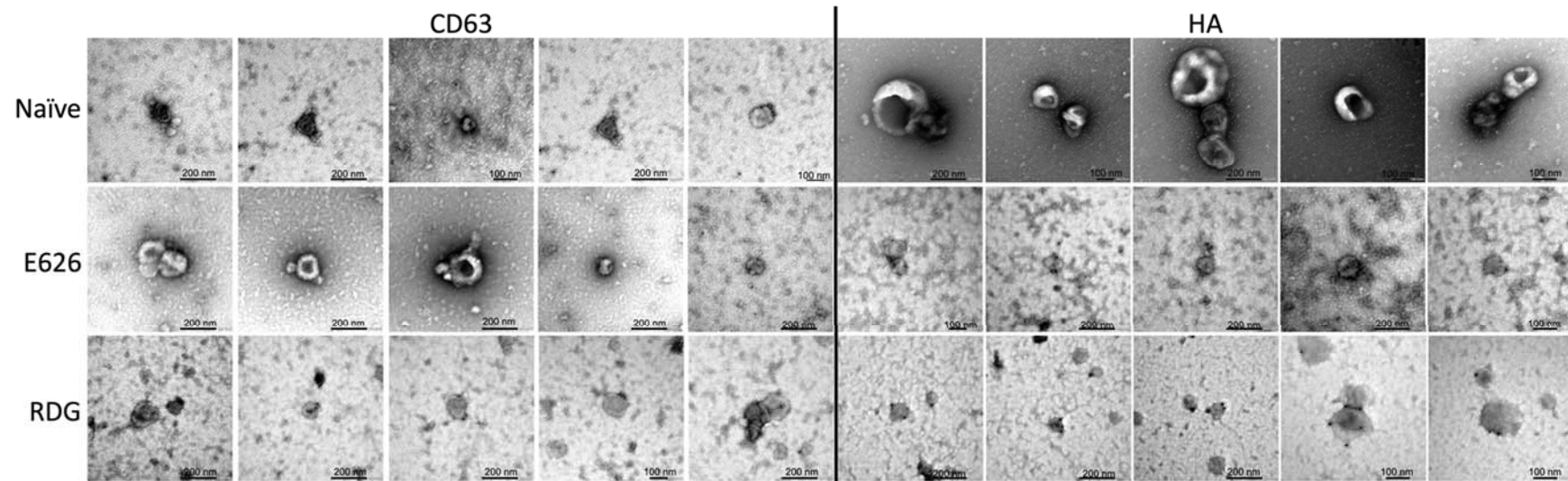


Figure S2. Immuno-Transmission electron microscopy (Immuno-TEM) images of CD63 or HA labeled naïve EVs, E626-EVs and RDG-EVs.

Table S1. The list of DNA sequences used in this study

Primer	Sequence (5'-3')	Template
C1C2-F	GAATGTGTCGAGCCACTGGG	pcS-C1C2 backbone
HA-R	AGCATAATCTGGAACATCATATGG	
Synthetic DNA Fragments		
RDG gBlock	GTTCCAGATTATGCTTCCTCCGACTCTCCGCGTAACCTGGAGGTTACCAACGCAACTCCGAACTCTCTGACTATTTCTTGGGATGCGCCGGCTGTTACCGTACGTTACTACCGTATCACCTACGGCGAAACTGGTGGTAACTCCCCGAGCCAGGAATTCAGTGTTCGGGTTTCGCGCTCTACCGCGACCATCAGCGGTCTGAAACCGGGCCAGGATTATACCATTACCGTGTACGCTGTAACCGGTCGCGACGGCAGCCCGGCGTCCAGCCGTCCAATCAGCATCAATTATCGCACCGAAATCGACAAACCGTCTCAGGGTGGAGGCGGTTCA	RDG monobody
E626 gBlock	gttccagattatgctAGCAGCGATAGCCCGCGCAACCTGGAAGTGACCAACGCGACCCCGAACA GCCTGACCATTAGCTGGTTTGATTATGCGGTGACCTATTATCGCATTACCTATGGCGAAACC GGCGGCAACAGCCCCGAGCCAGGAATTTACCGTGCCGGGCTGGATTAGCACCGCGACCATTA GCGGCCTGAAACCGGGCCAGGATTATACCATTACCGTGTATGCGGTGACCGATAACAGCCA TTGGCCGTTTCGCAGCACCCCGATTAGCATTA ACTATCGCACCGAAATTGATAAACCGAGCCAGGGTGGAGGCGGTTCA	E626 monobody
PAS Linker	GGTGGAGGCGGTTTCAGGCGGAGGTGGCTCTGGCGGTGGCGGATCGGCCTCTCCAGCTGCACCTGCTCCAGCAAGCCCTGCTGCACCAGCTCCGTCTGCTCCTGCTGCCTCTCCAGCTGCACCTGCTCCAGCTTCTCCAGCAGCTCCTGCACCTAGTGCTCCTGCTGAATGTGTCGAGCCA	G4S-PAS Linker