

Supporting Information

Delivery of thrombolytic therapy using rod-shaped plant viral nanoparticles decreases risk of hemorrhage

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CONTENTS

- I. Figure S1. UV-vis spectrum of TMV-tPA
- II. Table S1. Densitometric analysis for the determination of tPA loading on TMV

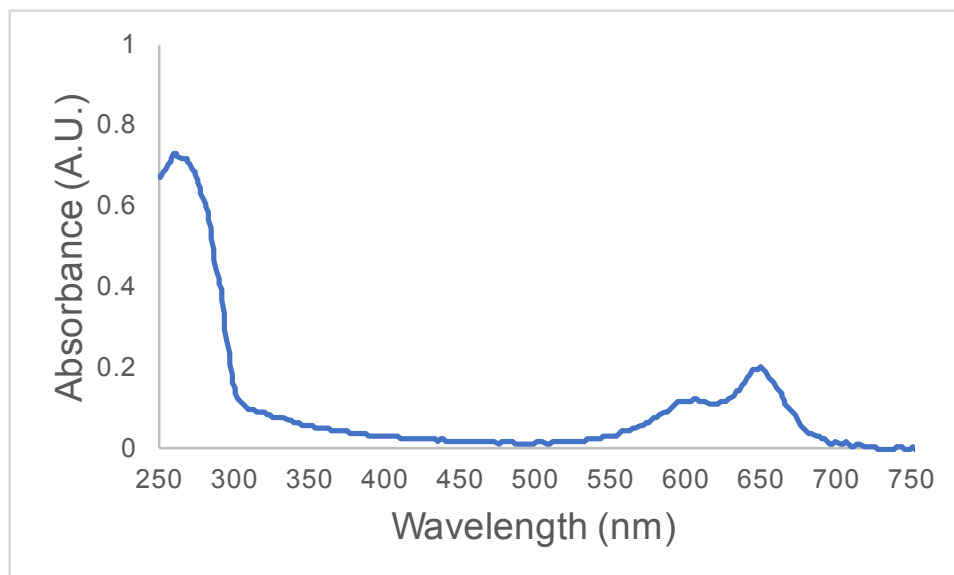


Figure S1. UV-vis spectrum of TMV-tPA. Based on ratio between the absorbance at 646 nm (λ_{\max} of sCy5) and 260 nm (λ_{\max} of TMV), it is determined that 108.6 ± 11.8 sCy5 molecules were conjugated to one TMV particle on average.

Table S1. Densitometric analysis for the determination of tPA loading.

	Band density [AU]			Fitting equation	$\mu\text{g tPA} / 20 \mu\text{g TMV}^*$	$\mu\text{g tPA} / \text{mg TMV}$	Number of tPA/TMV**
	tPA 1 μg	tPA 5 μg	TMVcp-tPA				
Batch 1	4890.12	21621.18	4965.09	$y=0.0002*x$	0.993	49.651	27.946
Batch 2	5733.46	23046.64	12838.65	$y=0.0002*x$	2.568	128.386	72.263
Batch 3	8599.41	28088.54	14702.71	$y=0.0002*x$	2.941	147.027	82.755
Batch 4	8659.19	23928.87	14377.45	$y = 0.0003*x - 1.268$	3.044	152.246	85.693
Batch 5	8070.77	23826.47	16351.43	$y = 0.0003*x - 1.049$	3.854	192.821	108.531
Batch 6	8070.77	23826.47	14494.36	$y = 0.0003*x - 1.049$	3.299	164.965	92.852
Batch 7	10188.02	19865.11	12712.88	$y = 0.0004*x - 3.211$	1.874	93.698	52.738
Batch 8	10188.02	19865.11	16761.13	$y = 0.0004*x - 3.211$	3.493	174.663	98.310
Average							77.64
SD							26.25

* calculated using the fitting equation

** calculated using $MW_{\text{tPA}} = 57 \text{ kDa}$ and $MW_{\text{TMV}} = 39400 \text{ kDa}$