

## Quantitation of Enterovirus A71 Empty and Full Particles by Sedimentation Velocity Analytical Ultracentrifugation

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Table S1. The relative percentage of EP and FP was determined by the three detection wavelengths

	230 nm			260 nm			280 nm		
	c-value	S	Capsid content	c-value	S	Capsid content	c-value	S	Capsid content
EP	0.9199	80	49.27%	0.1580	80	29.25%	0.1086	80	11.71%
FP	0.9472	152	50.73%	0.3821	153	70.75%	0.8186	151	88.29%

Table S2. Comparison of the relative percentage of EP, as determined by the ultraviolet (230 nm) and IF detection methods

	230 nm			IF			230 nm/IF
	S	c-value	Content (%)	S	c-value	Content (%)	
EP	82	0.0728	9.76%	80	0.0226	11.24%	0.87
	80	0.2366	36.13%	80	0.0747	39.54%	0.91
	80	0.3896	67.71%	83	0.1331	73.25%	0.99

Table S3. Comparison of the relative percentage of FP, as determined by the ultraviolet (230 nm) and IF detection methods

	230 nm			IF			230 nm/IF
	S	c-value	Content (%)	S	c-value	Content (%)	
FP	151	0.6734	90.24%	149	0.1784	88.76%	1.02
	151	0.4182	63.87%	149	0.1142	60.46%	1.06
	151	0.1858	32.29%	159	0.0486	26.75%	1.02

Table S4. Precision verification results of the relative percentage of EP and FP

Repeat	EP			FP		
	c	Content	S	c	Content	S
1	0.2998	41.32%	83	0.4257	58.68%	147
2	0.2981	41.70%	85	0.4167	58.30%	149
3	0.2653	40.97%	82	0.3822	59.03%	147
4	0.2809	41.13%	82	0.4021	58.87%	143
5	0.2681	47.73%	85	0.2936	52.27%	151
6	0.2673	42.17%	81	0.3666	57.83%	148
Mean	0.2799	42.50%	83	0.38115	57.50%	148
CV	5.62%	6.11%	2.02%	12.62%	4.52%	1.81%

Table S5. A summary of the FP content determined by the ultraviolet and IF detection methods compared to the theoretical percentage

Theoretical % FP	% FP by 230 nm	% FP by IF	%230 nm-%IF
100.00%	100.00%	100.00%	0.00%
85.26%	96.72%	89.48%	7.24%
69.20%	88.48%	84.93%	3.55%
51.65%	69.70%	66.46%	3.24%
32.39%	33.57%	35.47%	-1.90%
11.15%	10.06%	11.14%	-1.08%

Table S6. A comparison of the relative percentage of EP, as determined at 4 °C and 20 °C

	4 °C			20 °C			4 °C/20 °C
	S	c-value	Content (%)	S	c-value	Content (%)	
EP	51	0.0882	9.21%	82	0.0728	9.76%	0.94
	53	0.295	39.36%	80	0.2366	36.13%	1.09
	51	0.5162	72.27%	80	0.3896	67.71%	1.06

Table S7. A comparison of the relative percentage of FP, as determined at 4 °C and 20 °C

	4 °C			20 °C			4 °C/20 °C
	S	c-value	Content (%)	S	c-value	Content (%)	
FP	95	0.8694	90.79%	151	0.6734	90.24%	1.01
	96	0.4545	60.64%	151	0.4182	63.87%	0.95
	96	0.1981	27.73%	151	0.1858	32.29%	0.86

Table S8. A comparison of the relative percentage of FP in three lots

	EP			FP		
	c-value	Content (%)	S	c-value	Content (%)	S
Lot 1	0.2149	36.35%	82	0.3763	63.65%	149
Lot 2	0.2197	38.95%	81	0.3444	61.05%	150
Lot 3	0.1676	38.95%	84	0.2627	61.05%	151