

Table 1.
 Mass balances and percentile yields from the chromatographic purification of influenza A virus particles produced in 1 L STRs by capture with SXC and polishing by pseudo-affinity chromatography with a SCMA;
 data shown are means ± standard deviation of the mean.

Step	Vol. (mL)	Virus product								Impurities											
		aHA ^a				HA antigen ^b				Total protein ^c				host cell DNA ^d							
		HAU/100 µL		%		µg/mL		%		µg/mL		%		ng/mL		%					
Harvest (21+24 hpi) ^e		3,896.1	±	104.6		n.d.		n.d.		45.2	±	3.6		n.d.		1,171.2	±	58.6		n.d.	
Clarification (0.45 µm)		3,536.4	±	141.2		n.d.		n.d.		38.9	±	1.2		n.d.		974.1	±	11.8		n.d.	
Digestion + inactivation ^f	50.0	1,576.5	±	105.3		n.d.		4.4		29.5	±	2.9		n.d.		27.8	±	2.2		n.d.	
SXC load	73.6	1,070.8	±	71.6	100.0			2.9	100.0	22.7	±	0.1	100.0			12.7	±	0.7	100.0		
SXC elution	25.0	3,633.5	±	209.9	115.2	±	10.2	9.3	108.0	39.1	±	0.1	58.4	±	0.4	7.7	±	0.7	20.6	±	2.2
SCMA load	104.6	568.5	±	104.6	100.0			1.8	100.0	7.8	±	0.0	100.0			1.5	±	0.1	100.0		
SCMA elution	8.9	5,584.4	±	115.4	83.6	±	15.5	11.8	56.0	45.3	±	0.3	49.3	±	0.4	7.9	±	0.7	43.6	±	5.5

HAU=hemagglutination units; hpi=hours post infection;
^a by hemagglutination activity (aHA) assay
^b by single radial immunodiffusion (SRID) assay
^c total protein by Bradford assay
^d dsDNA by PicoGreen assay
^e centrifuged at 800×g
^f enzymatic DNA digestion followed by chemical inactivation with β-propiolactone