

**Supplementary Table 1. Comparison of areas under the curve<sup>a</sup> and mean peak viral titers<sup>b</sup> of *wt* and *ca* influenza viruses between HAEC, MDCK, and NHBE cell cultures.**

Virus	Subtype	<i>P</i> values <sup>c</sup>		
		HAEC vs MDCK	HAEC vs NHBE	MDCK vs NHBE
<i>wt</i> A/California/10/78	H1N1	< <b>0.01</b> <sup>a</sup> (< <b>0.01</b> <sup>b</sup> )	< <b>0.05</b> (< <b>0.01</b> )	< <b>0.05</b> (> 0.05)
<i>ca</i> A/California/10/78	H1N1	< <b>0.01</b> (< <b>0.01</b> )	> 0.05 (> 0.05)	< <b>0.01</b> (< <b>0.01</b> )
<i>wt</i> A/Alaska/6/77	H3N2	< <b>0.01</b> (< <b>0.01</b> )	< <b>0.01</b> (< <b>0.01</b> )	> 0.05 (> 0.05)
<i>ca</i> A/Alaska/6/77	H3N2	< <b>0.01</b> (< <b>0.01</b> )	< <b>0.01</b> (< <b>0.01</b> )	> 0.05 (> 0.05)
<i>wt</i> A/Washington/897/80	H3N2	< <b>0.01</b> (< <b>0.01</b> )	< <b>0.05</b> (< <b>0.01</b> )	> 0.05 (> 0.05)
<i>ca</i> A/Washington/897/80	H3N2	< <b>0.01</b> (< <b>0.01</b> )	> 0.05 (< <b>0.01</b> )	< <b>0.01</b> (< <b>0.01</b> )
<i>wt</i> A/New Caledonia/20/99	H1N1	ND	ND	< <b>0.01</b> (< <b>0.01</b> )
<i>ca</i> A/New Caledonia/20/99	H1N1	ND	ND	< <b>0.05</b> (< <b>0.01</b> )
<i>wt</i> A/Panama/2007/99	H3N2	ND	ND	< <b>0.05</b> (> 0.05)
<i>ca</i> A/Panama/2007/99	H3N2	ND	ND	> 0.05 (< <b>0.05</b> )
<i>wt</i> A/Wyoming/03/03	H3N2	ND	ND	< <b>0.05</b> (< <b>0.01</b> )
<i>ca</i> A/Wyoming/03/03	H3N2	ND	ND	> 0.05 (> 0.05)
<i>ca</i> A/Ann Arbor/6/60	H2N2	ND	ND	< <b>0.05</b> (< <b>0.01</b> )
<i>wt</i> A/Leningrad/134/57	H2N2	ND	ND	> 0.05 (< <b>0.05</b> )
<i>ca</i> A/Leningrad/134/17/57	H2N2	ND	ND	> 0.05 (> 0.05)
<i>ca</i> A/Leningrad/134/47/57	H2N2	ND	ND	< <b>0.05</b> (< <b>0.05</b> )
<i>ca</i> A/Leningrad/134/80/57	H2N2	ND	ND	< <b>0.01</b> (< <b>0.01</b> )
<i>ca</i> A/chicken/HK/G9/97	H9N2	ND	ND	< <b>0.05</b> (< <b>0.01</b> )
<i>wt</i> B/Hong Kong/330/01	–	ND	ND	< <b>0.05</b> (< <b>0.01</b> )
<i>ca</i> B/Hong Kong/330/01	–	ND	ND	> 0.05 (> 0.05)

<sup>c</sup> *P* value for comparison of AUC and mean peak titers between cell lines (one-way ANOVA or unpaired *t*-test).