

Additional File 2

Derivation of relative infectivities free virus infection and cell-cell transmission

A

Raw Data (in Relative Light Units, RLU):

	free virus infection	cell-cell transmission
wt env	<i>a</i>	<i>c</i>
mutant env	<i>b</i>	<i>d</i>

B

Normalization mutant to wt env infectivity:

Free virus infection:

$$\% \text{ mutant infectivity } (\mathbf{x}) = \frac{b}{a} \times 100$$

Cell-cell transmission:

$$\% \text{ mutant infectivity } (\mathbf{y}) = \frac{d}{c} \times 100$$

C

Relative cell-cell to free virus infection efficacy of mutant env:

$$\text{Fold difference cell-cell transmission to free virus infectivity} = \frac{y}{x}$$