## Supporting Information for Influenza A M2 Inhibitor Binding Understood through Mechanisms of Excess Proton Stabilization and Channel Dynamics

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**SI Figure 1**. A schematic of eccentricity calculations, with pore-lining alpha-carbons shown as blue spheres. Dark blue spheres are Gly34 alpha-carbons. The major and minor axes of the oval are defined by the distances between alpha-carbons on opposing helices, indicated as lines a and b.

**SI Table 1**. Eccentricity values of the pore at each of the pore-lining residues, calculated using alpha-carbon positions as described in the text. Eccentricity was calculated for proton positions in the top <sup>1</sup>half of the channel,  $CEC_z = [-18.0, -1.0]$  Å.

| Residue | Average <i>e</i> over<br>all CEC <sub>z</sub> | Max value of <i>e</i><br>and position | Min value of <i>e</i><br>and position | Difference<br>between max and<br>min values | RMSD |
|---------|---|---------------------------------------|---------------------------------------|---|------|
| Val27   | 0.34  | 0.43<br>CEC <sub>z</sub> = -4.0 Å     | 0.27<br>CEC <sub>z</sub> =-17.5 Å     | 0.16  | 0.13 |
| Ser31   | 0.29  | 0.41<br>CEC <sub>z</sub> = -10.0 Å    | 0.25<br>CEC <sub>z</sub> = -2.5 Å     | 0.16  | 0.13 |
| Gly34   | 0.38  | 0.57<br>CEC <sub>z</sub> = -16.5 Å    | 0.28<br>CEC <sub>z</sub> = -6.0 Å     | 0.29  | 0.17 |
| His37   | 0.42  | 0.65<br>CEC <sub>z</sub> = -16.5 Å    | 0.30<br>CEC <sub>z</sub> = -9.0 Å     | 0.35  | 0.18 |
| Trp41   | 0.40  | 0.60<br>CEC <sub>z</sub> = -16.0 Å    | 0.27<br>CEC <sub>z</sub> = -4.0 Å     | 0.33  | 0.17 |

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