**Virologica Sinica**

**Supplementary Data**

**PA-E18G** **substitution in influenza A virus confers resistance to ZX-7101, a** **cap-dependent endonuclease inhibitor**

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**Supplemental Fig. S1.** Differentially expressed genes result from pH1N1 infection.Volcano plots indicating differentially regulated genes of pH1N1 infection (pH1N1 vs Mock). The numbers of downregulated and upregulated genes were labeled in blue and red respectively.

**Supplemental Table S1** Influenza A viruses with Gly18 of PA subunit

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| **Viruses** | **Location** | **Substitution** |
| A/swine/Indiana/A00968325/2010(H3N2) | PA | E18G |
| A/pheasant/Hong Kong/WF288W/2007(H9N2) | PA | E18G |
| A/turkey/Nigeria/08RS848-12/2006(H5N1) | PA | E18G |
| A/swine/Poland/134312/2012(H1N1) | PA | E18G |
| A/Vietnam/UT31412II/2008(H5N1) | PA | E18G |
| A/Utah/13/2016(H1N1) | PA | E18G |
| A/duck/Guangxi/149D24/2013(H4N6) | PA | E18G |
| A/swine/Indiana/A00968344/2011(H3N2) | PA | E18G |
| A/chicken/Nigeria/1047-54/2006(H5N1) | PA | E18G |
| A/California/MA\_07/2009(H1N1) | PA | E18G |
| A/swine/Guangdong/3584/2011(H1N2) | PA | E18G |
| A/England/451/2009(H1N1) | PA | E18G |
| A/chicken/Wenzhou/3330/2013(H9N2) | PA | E18G |
| A/turkey/Poland/14/2013(H9N2) | PA | E18G |
| A/Gallinula chloropus/Guangdong/GZ174/2014(H5N6) | PA | E18G |
| A/guinea fowl/Italy/1847/2000(H7N1) | PA | E18G |
| A/Copsychus saularis/Guangdong/SW8/2014(H5N6) | PA | E18G |
| A/swine/Saskatchewan/SD0108/2015(H1N1) | PA | E18G |
| A/chicken/Nigeria/SO300/2006(H5N1) | PA | E18G |
| A/duck/Bangladesh/26188/2015(H5N1) | PA | E18G |
| A/chicken/Florida/22780-2/88(H5N2) | PA | E18G |
| A/duck/Guangxi/1248/2006(H6N2) | PA | E18G |