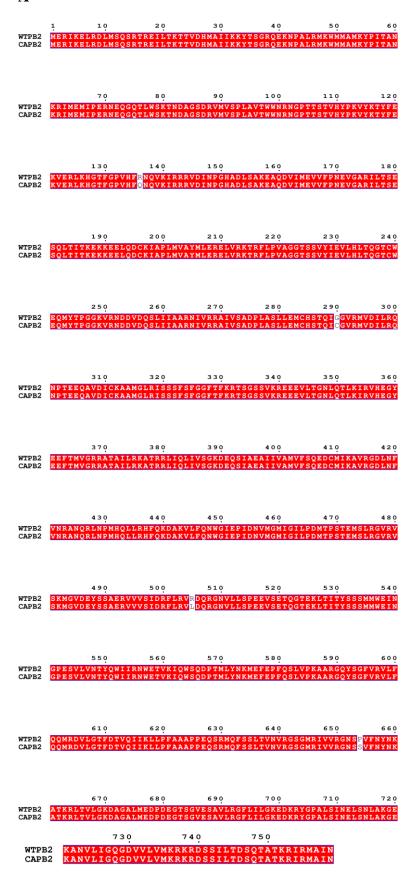
Supplementary Figure 1

for

Generation and protective efficacy of a cold-adapted attenuated avian H9N2 influenza vaccine

Yandi Wei, Lu Qi, Huijie Gao, Honglei Sun, Juan Pu, Yipeng Sun, and Jinhua Liu

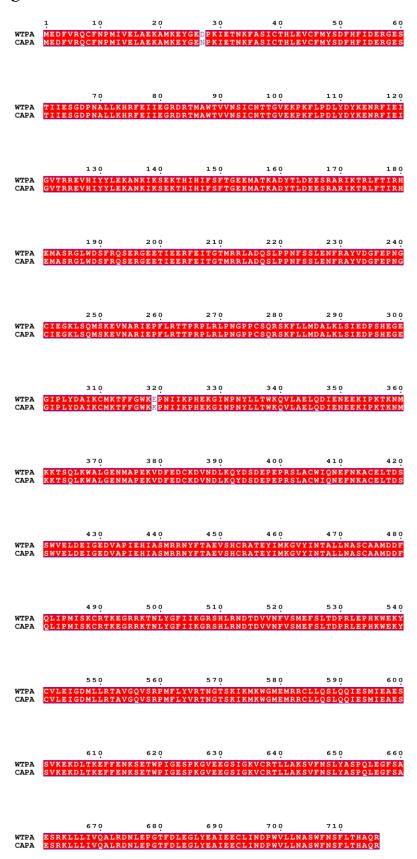




| WTPB1 CAPB1 | | | | 50 HKYSEKGKWTT HKYSEKGKWTT | |
|----------------|--|-------------|-------------|-----------------------------------|--|
| WTPB1 CAPB1 | | | | 110 CLETMEIVQQT | |
| WTPB1 CAPB1 | | | | 170 LKDVMDSMDKE LKDVMDSMDKE | |
| WTPB1 CAPB1 | | | | 230 MTKDAERGKLK MTKDAERGKLK | |
| WTPB1 CAPB1 | | ALARSICEKLE | | 290 RKMMTNSQDTE RKMMTKSQDTE | |
| WTPB1 CAPB1 | | | | 350 KMARLGKGYMF KMARLGKGYMF | |
| WTPB1 CAPB1 | | | | 410 MMMGMFNMLST MMMGMFNMLST | |
| WTPB1 CAPB1 | | | | 470 YRTCKLVGINM YRTCKLVGINM | |
| WTPB1 CAPB1 | | YRYGFVANFSI | MELPSFGVSG | 530 VTVIKNNMINN VTVIKNNMINN | |
| WTPB1 CAPB1 | | YTYRCHRGDTO | QIQTRRAFEL: | 590 AGLLVSDGGPN AGLLVSDGGPN | |
| WTPB1 CAPB1 | | | | 650 PAHGPAKSMEY PAHGPAKSMEY | |
| WTPB1 CAPB1 | | | | 710 RPVGISSMVEA RPVGISSMVEA | |

730 740 750

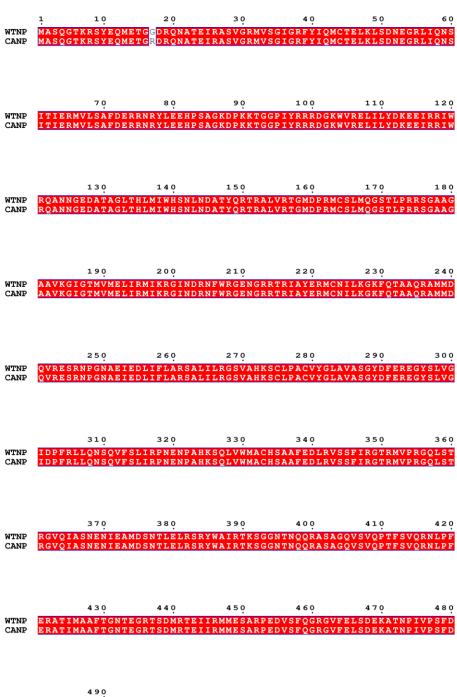
WTPB1 RARIDARIDFESGGIKKEEFAEIMKICSTIEELRRQK CAPB1 RARIDARIDFESGGIKKEKFAEIMKICSTIEELRRQK



| WTHA CAHA | i DKICIGY | 10 QSTNSTETV QSTNSTETV | 20 DTLTENNVPV DTLTENNVPV | 30 THAKELLHTE | 40 HNGMLCATSI HNGMLCATSI | 50 GHPLILDTCT GHPLILDTCT | 60 IEGL |
|--------------|--------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------------------|---------------------|
| WTHA CAHA | IYGNPSO IYGNPSO | 70 DLLLGGREW | 80 SYIVERPSAV SYIVERPSAV | 90 NGLCYPGNVE | 100 NLEELRSLFS NLEELRSLFS | 110 SARSYQRIQI SARSYQRIQI | 120 FPDT FPDT |
| WTHA CAHA | IWNVSYS IWNVSYS | 130 GTSKACSDS GTSKACSDS | 140 FYRSMRWLTQ FYRSMRWLTQ | 150 KNNAYPIQDA KNNDYPIQDA | 160 QYTNNQEKNI QYTNNQEKNI | 170 LFMWGINHPP LFMWGINHPP | 180 TDTA TDTA |
| WTHA CAHA | QTNLYTF QTNLYTF | 190 RTDTTTSVAT | 200 EEINRTFKPL EEINRTFKPL | 210 IGPRPLVNGL IGPRPLVNGF | 220 QGRIDYYWSV QGRIDYYWSV | 230 /LKPGQTLRIR /LKPGQTLRIR | 240 SNGN SNGN |
| WTHA CAHA | LIAPWY6 | 250 HILSGESHG | 260 RILKTDLKRG RILKTDLKRG | 270 SCTVQCQTEK SCTVQCQTEK | 280 GGLNTTLPFC | 290 NVSKYAFGNC NVSKYAFGNC | 300 SKYI |
| WTHA CAHA | GIKSLKI GIKSLKI | 310 AVGLRNVPS | 320 RSSRGLFGAI RSSRGLFGAI | 330 AGFIEGGWSG AGFIEGGWSG | 340 LVAGWYGFQH LVAGWYGFQH | 350 ISNDQGVGMAA ISNDQGVGMAA | 360 DRDS DRDS |
| WTHA CAHA | TQKAIDE TQKAIDE | 370 KITSKVNNIV KITSKVNNIV | 380 DKWNKÕĀĒII | 390 DHEFSEVETR DHEFSEVETR | 400 LNMINNKIDE LNMINNKIDE | 410 OQIQDIWAYNA OQIQDIWAYNA | 420 ELLV ELLV |
| WTHA CAHA | | | | | | 470 OCMETIRNGT OCMETIRNGT | |
| WTHA CAHA | | CLERQKIEGV | | LTIYSTVASS | IVIAMGFAAF | 530 LFWAMSNGSC LFWAMSNGSC | |
| | | | | | | | |







MNNEGSYFFGDNAEEYDN MNNEGSYFFGDNAEEYDN

WTNP CANP



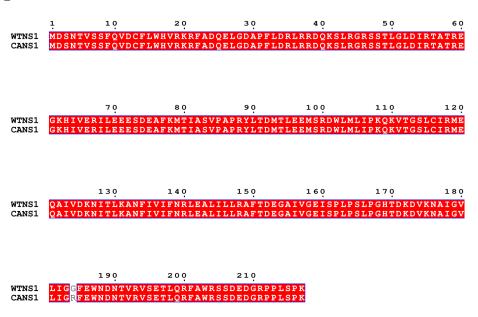


Fig. S1. Amino acid sequences of the SD/01/10- wt and ca mutant viruses.

Identical sequences of PB2 (A), PB1 (B), PA (C), HA (D), NP (E), NS1(F) are shown in red, amino acid changes detected in the ca mutant viruses are shown in white.