

Figure S1. Influenza antigen microarray data combined. The combined data including the different antigens was plotted. Serum (A) IgG and (B) IgA at 20dpc against H1. Serum (C) IgG and (D) IgA at 14dpc against H1. (E–F) IgG in (E) NW and (F) BALF against H1 at 14dpc. (G–H) IgA in (G) NW and (H) BALF against H1 at 14dpc. (I) Serum IgG against NA. (J–K) Serum (J) IgA and (K) IgG against internal proteins. (L–M) Mucosal (L) IgG and (M) IgA against internal IAV proteins. Statistically significant differences between IGIP-H1att and caLen marked with red asterisks.

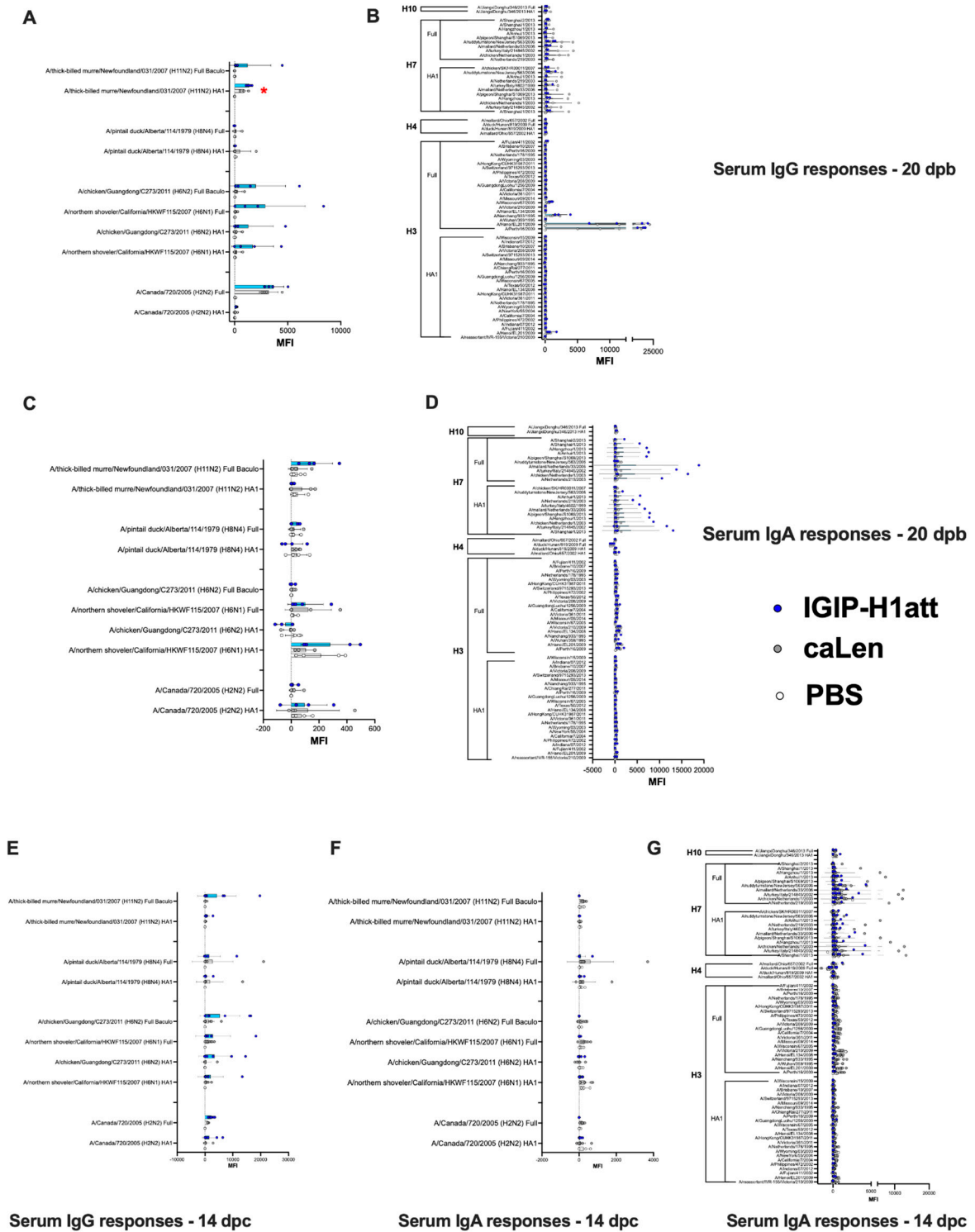


Figure S2. Influenza antigen microarray data against group 1 HA (H2, H6, H8 and H11) and group 2 HA (H3, H4, H7 and H10). (A–B) IgG against (A) group 1 and (B) group 2 HAs at 20dpb. (C–D) IgA against (C) group 1 and (D) group 2 HAs at 20dpb. (E) Serum IgG responses against group 1 at 14dpc. (F–G) Serum IgA response against (F) group 1 and (G) group 2 HAs. Statistically significant differences between IGIP-H1att and caLen are depicted red asterisks.

Table S1. Origin and catalog number of the antigens used in the Influenza antigen microarray†.

Isolate	Type of antigen	Catalog number
A/California/04/2009 (H1N1)	HA	11055-V08B
A/NewYork/18/2009 (H1N1)	HA	40009-V08H
A/England/195/2009 (H1N1)	HA	40005-V08H
A/California/07/2009 (H1N1)	HA	11085-V08H
A/Texas/05/2009 (H1N1)	HA	40006-V08H
A/Ohio/07/2009 (H1N1)	HA	40007-V08H
A/California/06/2009 (H1N1)	HA	40350-V08B
A/Beijing/22808/2009 (H1N1)	HA	40035-V08H
A/Brisbane/59/2007 (H1N1)	HA	11052-V08H
A/SolomonIslands/3/2006 (H1N1)	HA	11708-V08H
A/Ohio/UR060991/2007 (H1N1)	HA	11687-V08H
A/PuertoRico/8/1934 (H1N1)	HA	11684-V08H
A/Canada/720/2005 (H2N2)	HA	11688-V08H
A/HongKong/483/1997 (H5N1)	HA	11689-V08H
A/goose/Guiyang/337/2006 (H5N1)	HA	11690-V08H
A/japanesewhiteeye/HongKong/1038/2006 (H5N1)	HA	11694-V08H
A/chicken/India/NIV33487/2006 (H5N1)	HA	11712-V08H
A/Cambodia/R0405050/2007 (H5N1)	HA	11710-V08H
A/Vietnam/1194/2004 (H5N1)	HA	11062-V08H1
A/duck/Hunan/795/2002 (H5N1)	HA	11698-V08H
A/whooperswan/Mongolia/244/2005 (H5N1)	HA	11709-V08H
A/Egypt/2321NAMRU3/2007 (H5N1)	HA	11697-V08H
A/northernshoveler/California/HKWF115/2007 (H6N1)	HA	11723-V08H
A/chicken/Guangdong/C273/2011 (H6N2)	HA	40398-V08B
A/pintailduck/Alberta/115/1979 (H8N4)	HA	11722-V08H
A/shorebird/Delaware/261/2003 (H9N5)	HA	40181-V08B
A/HongKong/1073/1999 (H9N2)	HA	11229-V08H
A/chicken/HongKong/G9/1997 (H9N2)	HA	40036-V08H
A/guineafowl/HongKong/WF10/1999 (H9N2)	HA	11719-V08H
A/HongKong/3239/2008 (H9N2)	HA	40178-V08B
A/HongKong/35820/2009 (H9N2)	HA	40174-V08B
A/thickbilledmurre/Newfoundland/031/2007 (H11N2)	HA	40187-V08B
A/Perth/16/2009 (H3N2)	HA	40043-V08H
A/Hanoi/EL201/2009 (H3N2)	HA	40490-V08B
A/Wuhan/359/1995 (H3N2)	HA	40475-V08B
A/Nanchang/933/1995 (H3N2)	HA	40485-V08B
A/Hanoi/EL134/2008 (H3N2)	HA	40489-V08B
A/Victoria/210/2009 (H3N2)	HA	40058-V08B
A/Wisconsin/67/2005 (H3N2)	HA	11972-V08H
A/Missouri/09/2014 (H3N2)	HA	40494-V08B
A/Victoria/361/2011 (H3N2)	HA	40145-V08B
A/California/7/2004 (H3N2)	HA	40118-V08B
A/GuangdongLuohu/1256/2009 (H3N2)	HA	40152-V08B
A/Victoria/208/2009 (H3N2)	HA	40151-V08B
A/Texas/50/2012 (H3N2)	HA	40354-V08B
A/Philippines/472/2002 (H3N2)	HA	40487-V08B
A/Switzerland/9715293/2013 (H3N2)	HA	40497-V08B

A/HongKong/CUHK31987/2011 (H3N2)	HA	40146-V08B
A/Wyoming/03/2003 (H3N2)	HA	11715-V08H
A/Netherlands/178/1995 (H3N2)	HA	40486-V08B
A/Brisbane/10/2007 (H3N2)	HA	11056-V08H
A/Fujian/411/2002 (H3N2)	HA	40488-V08B
A/duck/Hunan/819/2009 (H4N2)	HA	40390-V08B
A/mallard/Ohio/657/2002 (H4N6)	HA	11714-V08H
A/Netherlands/219/2003 (H7N7)	HA	11082-V08B
A/chicken/Netherlands/1/2003 (H7N7)	HA	11212-V08B
A/turkey/Italy/214845/2002 (H7N3)	HA	40128-V08B
A/mallard/Netherlands/33/2006 (H7N8)	HA	40172-V08B
A/ruddyturnstone/NewJersey/563/2006 (H7N2)	HA	40170-V08B
A/pigeon/Shanghai/S1069/2013 (H7N9)	HA	40106-V08H
A/Anhui/1/2013 (H7N9)	HA	40103-V08H
A/Hangzhou/1/2013 (H7N9)	HA	40105-V08H
A/Shanghai/2/2013 (H7N9)	HA	40239-V08H
A/JiangxiDonghu/346/2013 (H10N8)	HA	40359-V08B
A/Egypt/2321NAMRU3/2007 (H5N1)	NA	40045-VNAHC
A/HongKong/4801/2014 (H3N2)	NA	40569-V07H
A/Aichi/2/1968 (H3N2)	NA	40199-V07H
A/California/04/2009 (H1N1)	NA	11058-V08B
A/Hubei/1/2011 (H5N1)	NA	40018-V07H
A/Anhui/1/2013 (H7N9)	NA	40108-V07H
A/PuertoRico/8/1934 (H1N1)	NA	40196-VNAHC
A/Michigan/45/2015 (H1N1)	NA	40568-V07H
A/Anhui/1/2005 (H5N1)	NA	11676-VNAHC
A/Babol/36/2005 (H3N2)	NA	40017-V07H
A/USSR/90/1977 (H1N1)	NA	40197-V07H
A/California/07/2009 (H1N1)	NP	40205-V08B
A/Puerto Rico/8/1934 (H1N1)	NP	11675-V08B
A/Hong Kong/1/1968 (H3N2)	NP	40208-V08B
A/Aichi/2/1968 (H3N2)	NP	40207-V08B
A/Aichi/2/1968 (H3N2)	M1	40215-V07E
A/Puerto Rico/8/1934 (H1N1)	M1	40010-V07E
A/Brevig Mission/1/1918	M1	40211-V07E
A/Puerto Rico/8/1934 (H1N1)	NS1	40011-V07E
A/Puerto Rico/8/1934 (H1N1)	NS2	40012-VNA

+All antigens obtained from Sino Biological (Wayne, PA).