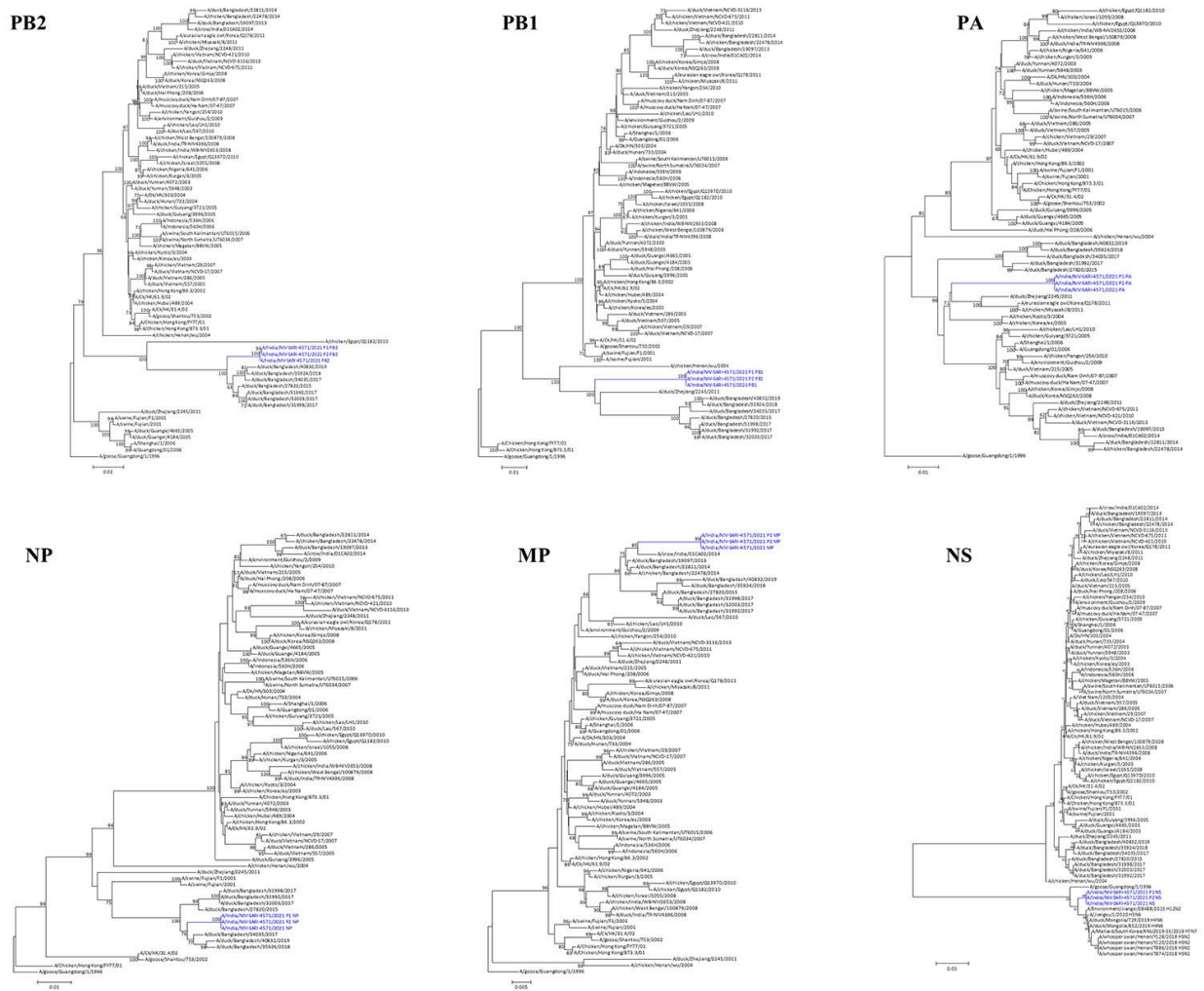


# Identification of Human Case of Avian Influenza A(H5N1) Infection, India

## Appendix



**Appendix Figure 1.** Phylogenetic tree of all 8 genes of study virus A/India/NIV-SARI-4571/2021 (H5N1): A) polymerase basic 2 gene (PB2); B) polymerase basic 1 gene (PB1); C) polymerase gene (PA); D) nuclear protein gene (NP); E) matrix gene (M); and F) nonstructural gene (NS). The numbers above the branches are the bootstrap probabilities (%) for each branch, determined using MEGA software, version 7 (<https://megasoftware.net>). We used Gs/Guangdong/1/96 as the out group.

#A/goose/Guangdong/1/1996	MERIKELRDL MSQSRTEILL TKTTVDHMAI IKKYTSGRQE KNFALRMKWM MAMKYFITAD KRIMEMIPER NEQQOTLWSK TNDAGSDRVM VSELAVITWNN	[100]
#A/India/NIV-SARI-4571/2021_PB2	.....	[100]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....	[100]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....	[100]
#A/goose/Guangdong/1/1996	RNGPPTSTVH YPKVYKYTFE KVERLRHGTG GPVHFRNQVK IRARVDINPG HADLSAKEAQ DVIMEVVPFN EVGARILITSE SGLTITKEKK EELQDCKIAP	[200]
#A/India/NIV-SARI-4571/2021_PB2	.....G.A.....A.....T.....	[200]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....G.A.....A.....T.....	[200]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....G.A.....A.....T.....	[200]
#A/goose/Guangdong/1/1996	LMVAYMLERE LVRKTRFELV AGGTSSVYIE VLHLTQGTWC EQMYTPGGEV RNDVDQSLI IAARNIVRRA TVSADPLASL LEMCHSTQIG GIRMDVILRQ	[300]
#A/India/NIV-SARI-4571/2021_PB2	.....K.....	[300]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....K.....	[300]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....K.....	[300]
#A/goose/Guangdong/1/1996	NPTTEQAVDI CKAAMGLRIS SSFSGGPTF KRTNGSSVKK EEEVLGTNLQ TLKIKVHEGV EEFMTVGRRA TAILRKATR LIQLIVSGRD EQSLAEAIIV	[400]
#A/India/NIV-SARI-4571/2021_PB2	.....I.....S.....R.....R.....	[400]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....I.....S.....R.....R.....	[400]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....I.....S.....R.....R.....	[400]
#A/goose/Guangdong/1/1996	AMVFSQEDCM IKAVRGDLNF VNRANQRINP MHQLLRHFQK DAKVLFQNWG IEPIDNVGMG IGILEDMPFS AEMSLAGVRV SKMGVDEYSS TERVVVSIDR	[500]
#A/India/NIV-SARI-4571/2021_PB2	.....V.....S.....N.....T.....	[500]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....V.....S.....N.....T.....	[500]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....V.....S.....N.....T.....	[500]
#A/goose/Guangdong/1/1996	FLVRDQQGN VLLSPEEVSE TQGTREKITF YSSMMWEIN GPESVLWNTV QMIIRNWTV KIQWSQDPTM LYNRMFESF QSLVPEAARS QYSGFVRTLF	[600]
#A/India/NIV-SARI-4571/2021_PB2	.....R.....R.....P.....G.....	[600]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....R.....R.....P.....G.....	[600]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....R.....R.....P.....G.....	[600]
#A/goose/Guangdong/1/1996	QQMRDVLGTF DTVQIILKLP FAAAPPEPSR MQFSSLTVNV RSGSMRILVR GNSPVENYNK ATKRLTVLKG DAGALTEPDP EGTAGVESAV LEGFLILGRE	[700]
#A/India/NIV-SARI-4571/2021_PB2	.....V.....Q.....V.....A.....K.....	[700]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....V.....Q.....V.....A.....K.....	[700]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....V.....Q.....V.....A.....K.....	[700]
#A/goose/Guangdong/1/1996	DKRYGPALSI NELSNAKGE KANVLIHQGD VLVMKRRKD FSILTDSQTA TKRIRMAIN*	[760]
#A/India/NIV-SARI-4571/2021_PB2	.....G.....S.....	[760]
#A/India/NIV-SARI-4571/2021_P1_PB2	.....G.....S.....	[760]
#A/India/NIV-SARI-4571/2021_P2_PB2	.....G.....S.....	[760]
#A/goose/Guangdong/1/1996	MDVNPTLLEL KVPQAIAIST TFFYTGDPY SHGTGTGYTM DTVNRTHQYS EKGKWTNTTE TGAEPQLNEID GPLEFDNEPS GYAQTDCVLE AMAFLEESHP	[100]
#A/India/NIV-SARI-4571/2021_PB1	.....	[100]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....	[100]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....	[100]
#A/goose/Guangdong/1/1996	GIFENSCLER MEVVQOTRVD KLTQGRQYVD WTLKQNPAA TALANTIEVF RSNGLTANES GRLIDFLKVD MESMDKGEHE IITHEQRKR VEDNMTKQMV	[200]
#A/India/NIV-SARI-4571/2021_PB1	.....N.....R.....D.....E.....T.....	[200]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....N.....R.....D.....E.....T.....	[200]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....N.....R.....D.....E.....T.....	[200]
#A/goose/Guangdong/1/1996	TQRTIGKKQ RLNKRSLYLR ALTLMVTMKD AERGLKRRR IATPGMQING FVYFVETLAR SICEKLEQSG LPVGGHEKKA KLANVVRKMM TMSQDTELSF	[300]
#A/India/NIV-SARI-4571/2021_PB1	.....R.....K.....	[300]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....R.....K.....	[300]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....R.....K.....	[300]
#A/goose/Guangdong/1/1996	TITGDNTKWN ENQNPREFLA MITYITRNQP EWFERNLSIA FIMFSNKHAR LGKGYMFESK SMKRLTQIPA EMLASIDLKY FNESTRKKIE KIRFLLIDGT	[400]
#A/India/NIV-SARI-4571/2021_PB1	.....I.....N.....D.....K.....	[400]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....I.....N.....D.....K.....	[400]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....I.....N.....D.....K.....	[400]
#A/goose/Guangdong/1/1996	ASLSPGMMMG MENMLETVLG VSILNLGQKR YTKTTYMWDG LQSSDDFALI VNARNHEGIE AGVDRFYRTC KLVGINMTKK KSYINKTGTG EFTSFFRYRG	[500]
#A/India/NIV-SARI-4571/2021_PB1	.....Q.....S.....F.....	[500]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....Q.....S.....F.....	[500]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....Q.....S.....F.....	[500]
#A/goose/Guangdong/1/1996	FVANFSMELP SFGVSGINES ADMSIGVTVI KNNMNDLGG PATAQMALQL FIKDYRYPYR CHRGETQIQRT RRSFELKRLW EQTSKAGLL VSDGGNPNVN	[600]
#A/India/NIV-SARI-4571/2021_PB1	.....I.....N.....T.....L.....	[600]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....I.....N.....T.....L.....	[600]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....I.....N.....T.....L.....	[600]
#A/goose/Guangdong/1/1996	IRNLHIPEAG LKWEIMDEBY QGRLCNPLNP FVSHKIESV NNAVVMPAHG PAKSMEYDAV ATTHSWIPKR NRSILMTSQR GILEDEQMYQ KCCNLFKFF	[700]
#A/India/NIV-SARI-4571/2021_PB1	.....VC.....S.....	[700]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....VC.....S.....	[700]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....VC.....S.....	[700]
#A/goose/Guangdong/1/1996	FSSYRFPVG ISSMVEAMVS RARIDARIDF ESGRIKKEEF AEIMKICSTI EELGRQK*	[758]
#A/India/NIV-SARI-4571/2021_PB1	.....R.....[758]	[758]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....R.....[758]	[758]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....R.....[758]	[758]
#A/goose/Guangdong/1/1996	MEQEQDTPWT QSTEHINIQR RGNGQRTQRL EHPNSIRLMD HYLRLMSRVG MHKQIVYWKQ WLSLKNPTQG SLKTRVLKRW KLESQEWIS *	[91]
#A/India/NIV-SARI-4571/2021_PB1	.....T.....E.....Q.....TQ.....TTNQAD.....AC.....F.....S.....L.....RS.....TN.....[91]	[91]
#A/India/NIV-SARI-4571/2021_P1_PB1	.....T.....E.....Q.....TQ.....TTNQAD.....AC.....F.....S.....L.....RS.....TN.....[91]	[91]
#A/India/NIV-SARI-4571/2021_P2_PB1	.....T.....E.....Q.....TQ.....TTNQAD.....AC.....F.....S.....L.....RS.....TN.....[91]	[91]

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#A/goose/Guangdong/1/1996 MEDVFRQCFN PMIVELAeka MKEYGEDPKI ETNKFAAICT HLEVCFMYSD EHFIDERGES TTIIESGDENA LLKHFEEIE GRDRMTAWTV VNSICNTTGV [100]
#A/India/NIV-SARI-4571/2021_PA ..... I.V..... [100]
#A/India/NIV-SARI-4571/2021_P1_PA ..... I.V..... [100]
#A/India/NIV-SARI-4571/2021_P2_PA ..... I.V..... [100]

#A/goose/Guangdong/1/1996 EKPKFLPDLY DYKRNRFIEI GVTRREVHTY YLEKANKIKS EKTHIHIFSF TGEEMATKAD YTLDEESRAR INTRLFPIRQ EMASRGLWDS FQOSERGEET [200]
#A/India/NIV-SARI-4571/2021_PA D.....S.....I.....P..... [200]
#A/India/NIV-SARI-4571/2021_P1_PA D.....S.....I.....P..... [200]
#A/India/NIV-SARI-4571/2021_P2_PA D.....S.....I.....P..... [200]

#A/goose/Guangdong/1/1996 VEERFEITGT MRLADQSLP ENFSSLEKFR AYVDGFEFNG CIEGKLSQMS KEVNARIEFF LKTTPELLEL PDGPECSQRS KFLMLDALKL SIEDFSHEGE [300]
#A/India/NIV-SARI-4571/2021_PA I.....R.....GN.....T.S..... [300]
#A/India/NIV-SARI-4571/2021_P1_PA I.....R.....GN.....T.S..... [300]
#A/India/NIV-SARI-4571/2021_P2_PA I.....R.....GN.....T.S..... [300]

#A/goose/Guangdong/1/1996 GIPLYDAIKC MKTFFGWKEP NIVKPKHEKGI NENYLLAWKQ VLAELQDIEN EEKIPKTKNM RKTSQLKVAL GENMAPEKVD FEDCKDVS DL RQYDSDEKPK [400]
#A/India/NIV-SARI-4571/2021_PA .....S.....K.....ES [400]
#A/India/NIV-SARI-4571/2021_P1_PA .....S.....K.....ES [400]
#A/India/NIV-SARI-4571/2021_P2_PA .....S.....K.....ES [400]

#A/goose/Guangdong/1/1996 RSLASWQSE ENKACELTDS SWIELEDEIGE DVAPIEHIAS MRRNYPTAEV SHCRATEYIM KGVYINTALL NASCAAMDDF QLIPMISKCR TKEGRRKTNL [500]
#A/India/NIV-SARI-4571/2021_PA ..... [500]
#A/India/NIV-SARI-4571/2021_P1_PA ..... [500]
#A/India/NIV-SARI-4571/2021_P2_PA ..... [500]

#A/goose/Guangdong/1/1996 YGFLINGRSH LRNDTDVWVF VSMFEPLTDP RLEPHRWERY CVLRIGDMLL RTEIGQVSRP MFLYVRTNQT SKIKRMWME MRCRPFQSLQ QIESMIEAES [600]
#A/India/NIV-SARI-4571/2021_PA ..I.....A.....LL..... [600]
#A/India/NIV-SARI-4571/2021_P1_PA ..I.....K.....E.....A.....LL..... [600]
#A/India/NIV-SARI-4571/2021_P2_PA ..I.....K.....E.....A.....LL..... [600]

#A/goose/Guangdong/1/1996 SVKEKIMTKE FFEKNSETWP IGESPGKVEE GSIGKVCRTL LAKSEVNSLY ASPQLEGFSA ESKLLLIQV ALRDNLEPQT FDLGGLYEAI EECLINDFVW [700]
#A/India/NIV-SARI-4571/2021_PA .....V.....R..... [700]
#A/India/NIV-SARI-4571/2021_P1_PA .....V.....R..... [700]
#A/India/NIV-SARI-4571/2021_P2_PA .....V.....R..... [700]

#A/goose/Guangdong/1/1996 LLNASWFNSF LTHALR* [717]
#A/India/NIV-SARI-4571/2021_PA .....K. [717]
#A/India/NIV-SARI-4571/2021_P1_PA .....K. [717]
#A/India/NIV-SARI-4571/2021_P2_PA .....K. [717]

#A/goose/Guangdong/1/199610 DQICIGYHAN NSTEQVDTIM EKNVTVTHAQ DILEKTHNGK LCDLNGVKPL ILRDCSVAGW LLGNMCMDEF INVFEWSEYIV EKASPANDLC YPGDFNDYEE [100]
#A/India/NIV-SARI-4571/2021_HA .H.....K..... [100]
#A/India/NIV-SARI-4571/2021_P1_HA .H.....K..... [100]
#A/India/NIV-SARI-4571/2021_P2_HA .H.....K..... [100]

#A/goose/Guangdong/1/199610 LKHLKRTNH FEKIQUIPKS SMSNHDASSG VSSACYPHGR SFFERNVWVL IKKNSAYPTI KRSYNNTNQE DLLVLWGIHH PNDAAEQTKL YQNPTTYISV [200]
#A/India/NIV-SARI-4571/2021_HA .....I.....VR.....E...E.EV.L...A...Q.N P.....NT.....K.....I.....NE...N.....I [200]
#A/India/NIV-SARI-4571/2021_P1_HA .....I.....VR.....E...E.EV.L...A...Q.N P.....NT.....K.....I.....NE...N.....I [200]
#A/India/NIV-SARI-4571/2021_P2_HA .....I.....VR.....E...E.EV.L...A...Q.N P.....NT.....K.....I.....NE...N.....I [200]

#A/goose/Guangdong/1/199610 GTSTLNQRLV PEIATRPKVN GQSGRMEFFM TILKENDAIN FESNGFIAP EVAYKIVKKG DSAIMKSELE YGNCNTKQOT PMGAINSSMP FHNHPLTIG [300]
#A/India/NIV-SARI-4571/2021_HA .....K...S.I...ID...N...H.....T...V.....R.....I..... [300]
#A/India/NIV-SARI-4571/2021_P1_HA .....K...S.I...ID...N...H.....T...V.....R.....I..... [300]
#A/India/NIV-SARI-4571/2021_P2_HA .....K...S.I...ID...N...H.....T...V.....R.....I..... [300]

#A/goose/Guangdong/1/199610 ECKYVKNR LVLATGLRNT PQRERRRKRK GLEGAIAGEI EGGWQGMVDG WYVYHNSNEQ GSGYAADKES TQKAIQVTVN KVNSIIDKMN TQFEAVGREF [400]
#A/India/NIV-SARI-4571/2021_HA .....K.....S..... [400]
#A/India/NIV-SARI-4571/2021_P1_HA .....K.....S..... [400]
#A/India/NIV-SARI-4571/2021_P2_HA .....K.....S..... [400]

#A/goose/Guangdong/1/199610 MNLERRIENL NKQMEDGF LD WMTYNAELLV LMEHERTLDF HDSMVKNLYD KVRLLQLRDMA KELGNGCFEF YHKDCNECHE SVKNGTYDYP QYSEEARLNR [500]
#A/India/NIV-SARI-4571/2021_HA .R.....K.....M.....S...K. [500]
#A/India/NIV-SARI-4571/2021_P1_HA .R.....K.....M.....S...K. [500]
#A/India/NIV-SARI-4571/2021_P2_HA .R.....K.....M.....S...K. [500]

#A/goose/Guangdong/1/199610 EEISGVKLES MGTYQILSIY STVASSLALA INVAGLSLWM CSNGSLQCRI CI* [553]
#A/India/NIV-SARI-4571/2021_HA .....P I.I.....V...M..... [553]
#A/India/NIV-SARI-4571/2021_P1_HA .....P I.I.....V...M..... [553]
#A/India/NIV-SARI-4571/2021_P2_HA .....P I.I.....V...M..... [553]

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#A/goose/Guangdong/1/1996 MASQGTKRSY EQMETGGERQ NATEIRASVG RMVGGIGRFY IQMCTELKLS DVEGRLIQNS ITTIERMVLSA FDERRNKYLE EHPSAGKDPK KTGGEPIYRRR [100]
#A/India/NIV-SARI-4571/2021_NP .....V.....Q.....R..... [100]
#A/India/NIV-SARI-4571/2021_P1_NP .....V.....Q.....R..... [100]
#A/India/NIV-SARI-4571/2021_P2_NP .....V.....Q.....R..... [100]

#A/goose/Guangdong/1/1996 DGRWVRELIIL YDKKEIRRIW RQANNSEDAT AGLTHMMIMW SNLMDATYQR TRALVKTGMD PRMCSLMQGS TLPFRSGAAG AAVKGVGTMV MELIRMIKRG [200]
#A/India/NIV-SARI-4571/2021_NP .....M.....L.....T..... [200]
#A/India/NIV-SARI-4571/2021_P1_NP .....M.....L.....T..... [200]
#A/India/NIV-SARI-4571/2021_P2_NP .....M.....L.....T..... [200]

#A/goose/Guangdong/1/1996 INDRNFWRGE NGRRTRIAYE RMCNILKGRF QTAQAQAMMD QVRESRNPGN AEIEDLIFLA RSALILRGSV AHRKSLPACV YGLAVASGYD FEREGYSLVG [300]
#A/India/NIV-SARI-4571/2021_NP ..... [300]
#A/India/NIV-SARI-4571/2021_P1_NP ..... [300]
#A/India/NIV-SARI-4571/2021_P2_NP ..... [300]

#A/goose/Guangdong/1/1996 IDPFRLQNS QVESLIRENE NPAHKSQLVW MACHSAAFED LRVSSFIRGT RVAPRQQLST RGVQIASNEN METMDSSTLE LRSRYWAIRT RSGGNTNQQR [400]
#A/India/NIV-SARI-4571/2021_NP .....V.....A..... [400]
#A/India/NIV-SARI-4571/2021_P1_NP .....V.....A..... [400]
#A/India/NIV-SARI-4571/2021_P2_NP .....V.....A..... [400]

#A/goose/Guangdong/1/1996 ASAGQISVQP TFSVQRNLEF ERATIMAAFT GNTTEGRTSDM RTEIIRMMES SRPEDVSFQG RGVFELSDEK ATNPIVPSFD MSNEGVSFFG DNAEISYDN* [499]
#A/India/NIV-SARI-4571/2021_NP .....A.....A.....A.....A..... [499]
#A/India/NIV-SARI-4571/2021_P1_NP .....A.....A.....A.....A..... [499]
#A/India/NIV-SARI-4571/2021_P2_NP .....A.....A.....A.....A..... [499]

#A/goose/Guangdong/1/1996 MNFNQKIITI GSICMVGGII SMLQIGNII SIWWSHSIQT GNQHQAEPCN QSIITYENNT WVMQTYVNIS NTNFLTEKAV ASVTLAGNSS LCPISGWAVH [100]
#A/India/NIV-SARI-4571/2021_NA .....M...LV...L...V..I...T...LM...R...F...I...EA.....A...N...N...A...V...R... [100]
#A/India/NIV-SARI-4571/2021_P1_NA .....M...LV...L...V..I...T...LM...R...F...I...EA.....A...N...N...A...V...R... [100]
#A/India/NIV-SARI-4571/2021_P2_NA .....M...LV...L...V..I...T...LM...R...F...I...EA.....A...N...N...A...V...R... [100]

#A/goose/Guangdong/1/1996 SKDNGIRIGS KGDVFEVIREP FISCSHLECK TFFLTQCALL NDKHSNGTVK DRSPHRTLMS CPVGEAPSPY NSRFESVAMS ASACHDGTSW LTIQISGPDN [200]
#A/India/NIV-SARI-4571/2021_NA .....S.....L.....D [200]
#A/India/NIV-SARI-4571/2021_P1_NA .....S.....L.....D [200]
#A/India/NIV-SARI-4571/2021_P2_NA .....S.....L.....D [200]

#A/goose/Guangdong/1/1996 GAVAVLKYNG IITDTIKSWR NNILRTQSE CACVNGSCFT VMTDGSNGQ ASYKIFKMEK GKVVRSVELN APNYHYECS CYPDAGEITC VCRDNWHSN [300]
#A/India/NIV-SARI-4571/2021_NA .....V.....VK.....M.....S..... [300]
#A/India/NIV-SARI-4571/2021_P1_NA .....V.....VK.....M.....S..... [300]
#A/India/NIV-SARI-4571/2021_P2_NA .....V.....VK.....M.....S..... [300]

#A/goose/Guangdong/1/1996 RFWVSNQML EYQIGYICGS VEGDNPRND GTGSCGPVSP NSAYGVGSGS FRYGNGWIG RTKSTNSRSG FEMHWNDGHW TGTDSSESVK QDVAITDWS [400]
#A/India/NIV-SARI-4571/2021_NA .....S.....S.....V.....D...N...I... [400]
#A/India/NIV-SARI-4571/2021_P1_NA .....S.....S.....V.....D...N...I... [400]
#A/India/NIV-SARI-4571/2021_P2_NA .....S.....S.....V.....D...N...I... [400]

#A/goose/Guangdong/1/1996 GYSGSFVQHP ELTGLDCIRP CFWEVLIRKG PRESTIWTSG SSISFCGVNS DTVGWSWEDD AELPFTDK* [470]
#A/India/NIV-SARI-4571/2021_NA .....I.....E..S.....G..... [470]
#A/India/NIV-SARI-4571/2021_P1_NA .....I.....E..S.....G..... [470]
#A/India/NIV-SARI-4571/2021_P2_NA .....I.....E..S.....G..... [470]

#A/goose/Guangdong/1/1996 MSLLTEVETY VLSIVSPGL KAEIAQRLED VFAGKNTLDE ALMEWLKTRP ILSPLTKGIL GFVFTLTVPS ERGLQRERFV QNALNGNGDE NMMDRAVKLY [100]
#A/India/NIV-SARI-4571/2021_MP .....I.....K.....S..... [100]
#A/India/NIV-SARI-4571/2021_P1_MP .....I.....K.....S..... [100]
#A/India/NIV-SARI-4571/2021_P2_MP .....I.....K.....S..... [100]

#A/goose/Guangdong/1/1996 KKLKREIFTH GAKEVALSYS TGLASCMGL IYNRMTVTT EVAFGLVCAT CEQIADSQHR SHRQMATTN PLIRHENRMV LASTTAKAME QMAGSEEQAA [200]
#A/India/NIV-SARI-4571/2021_MP ..... [200]
#A/India/NIV-SARI-4571/2021_P1_MP .....I..... [200]
#A/India/NIV-SARI-4571/2021_P2_MP .....I..... [200]

#A/goose/Guangdong/1/1996 EAMEVASQAR QMVQAMRTIG THPSSSAGLK DNLEMLQAY QKRMSVQMQR FK* [253]
#A/India/NIV-SARI-4571/2021_MP .....I..N.....N.....R..... [253]
#A/India/NIV-SARI-4571/2021_P1_MP .....I..N.....N.....R..... [253]
#A/India/NIV-SARI-4571/2021_P2_MP .....I..N.....N.....R..... [253]

#A/goose/Guangdong/1/1996 FTKNEWECKC SDSSDELVVA ASIIGILHLI LWILDELFEK CIYERLYKGL KRGPESTEGVP ESMREERYQE QQSVAVDVDDG HFVNIELE* [200]
#A/India/NIV-SARI-4571/2021_MP H.R.....R.....T.....K..... [200]
#A/India/NIV-SARI-4571/2021_P1_MP H.R.....R.....T.....K..... [200]
#A/India/NIV-SARI-4571/2021_P2_MP H.R.....R.....T.....K..... [200]

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#A/goose/Guangdong/1/1996      MDSNTITSFQ VDCYLWHIRK LLSMRDMCDA PFDDRLRRDQ KALKRGSTL GDLRVATME GKKIVEDILK SETNENLKIA IASSPAPRYI TMSIEEMSR [100]
#A/India/NIV-SARI-4571/2021_NS .....D.....I..
#A/India/NIV-SARI-4571/2021_P1_NS .....D.....I..
#A/India/NIV-SARI-4571/2021_P2_NS .....D.....I..

#A/goose/Guangdong/1/1996      EWTMLMPRQK ITGGLMVKMD QAIMDKRIIL KANFVLEFDQ LETLVSLRAF TEGSAIVAEI FPIPSVPGHF TEDVKNNAIGI LIGGLEWINDN SIRASENIQR [200]
#A/India/NIV-SARI-4571/2021_NS .....R.....S...M...S
#A/India/NIV-SARI-4571/2021_P1_NS .....R.....S...M...S
#A/India/NIV-SARI-4571/2021_P2_NS .....R.....S...M...S

#A/goose/Guangdong/1/1996      FAWGIHDENG GPSLPPKQKR YMARRVESEV *
#A/India/NIV-SARI-4571/2021_NS .....R.....P.L.E.....R.....
#A/India/NIV-SARI-4571/2021_P1_NS .....R.....P.L.E.....R.....
#A/India/NIV-SARI-4571/2021_P2_NS .....R.....P.L.E.....R.....

#A/goose/Guangdong/1/1996      QDILQRMSKM QLESSEVDLN GMITQFERLK IYRDSLGESE MRMGLHSLQ NNNATWRNEL SQKFEEIRWL IAECRNILTK TENSFEQITE LQALQLLLEV
#A/India/NIV-SARI-4571/2021_NS .....V.....F.S.....E.....
#A/India/NIV-SARI-4571/2021_P1_NS .....V.....F.S.....E.....
#A/India/NIV-SARI-4571/2021_P2_NS .....V.....F.S.....E.....

#A/goose/Guangdong/1/1996      ESEIRTFSEFQ LI*
#A/India/NIV-SARI-4571/2021_NS .....
#A/India/NIV-SARI-4571/2021_P1_NS .....
#A/India/NIV-SARI-4571/2021_P2_NS .....

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**Appendix Figure 2.** Amino acid alignment of 11 genes relative to A/goose/Guangdong/1/1996as prototype virus and the sequence obtained from the clinical sample and the passaged 1 and 2 virus of newly identified H5N1virus.