

**Figure S1.**

|                       |   |     |
|-----------------------|---|-----|
| TiLV-Segment-1-RDRP   | 1 -----MWAFQEG-----VCKGNLLSGPTSMKAPDSA-----ARESLDRASEI  | 37  |
| Influenza c virus-PB1 | 1 MEINPYLMFLNNDVTSLISTTYPYTGP <span style="background-color: yellow;">PPMSHGSSTKYTLETIKRTYDYSRTSVEKTSKV</span>  | 60  |
| TiLV-Segment-1-RDRP   | 38 MT-----GKSYNNAVHTGDL <span style="background-color: yellow;">SKL</span> PN-----QGESPLRIVDSDLYSE-----   | 72  |
| Influenza c virus-PB1 | 61 FNIPRRKFCNCLEDKNE <span style="background-color: yellow;">LV</span> KPTGNVDIGSLLG <span style="background-color: yellow;">LAEMMEKR</span> MGE <span style="background-color: yellow;">GFFK</span> HCVMEAETEILKM  | 120 |
| TiLV-Segment-1-RDRP   | 73 -----RSCCWVIEKE <span style="background-color: yellow;">G</span> -----RVVCKSTTLTRG-MTG <span style="background-color: yellow;">LLN</span> TRCSSPSEL <span style="background-color: yellow;">I</span> ---   | 112 |
| Influenza c virus-PB1 | 121 HFSRLTEGRQTYDW <span style="background-color: yellow;">T</span> SERNMPAAT <span style="background-color: yellow;">AL</span> QLTVDAIKETEGPF <span style="background-color: yellow;">KG</span> TTM <span style="background-color: yellow;">LEY</span> CNK <span style="background-color: yellow;">MI</span> E <span style="background-color: yellow;">LDW</span> K <span style="background-color: yellow;">E</span>   | 180 |
| TiLV-Segment-1-RDRP   | 113 CKVLTVESLSEK-----IGDTSVEELL <span style="background-color: yellow;">SH</span> GRYFKCALRD <span style="background-color: yellow;">Q</span> ERGKPK <span style="background-color: yellow;">S</span>   | 154 |
| Influenza c virus-PB1 | 181 IKFRKV <span style="background-color: yellow;">KT</span> MVRRE <span style="background-color: yellow;">KD</span> RSGKEIKTKPV <span style="background-color: yellow;">PMG</span> IDS <span style="background-color: yellow;">IKH</span> DEF <span style="background-color: yellow;">LIR</span> ALT <span style="background-color: yellow;">INT</span> MAK <span style="background-color: yellow;">DGER</span> G <span style="background-color: yellow;">KL</span> QR <span style="background-color: yellow;">240</span>  | 240 |
| TiLV-Segment-1-RDRP   | 155 RAI <span style="background-color: yellow;">F</span> L <span style="background-color: yellow;">SHPFF</span> RLLSSV <span style="background-color: yellow;">VETHAR</span> SV <span style="background-color: yellow;">LSK</span> V <span style="background-color: yellow;">SAVY</span> T <span style="background-color: yellow;">TASAE</span> Q <span style="background-color: yellow;">RAMMAA</span> Q <span style="background-color: yellow;">VVE</span> SRKH <span style="background-color: yellow;">V</span> -----  | 209 |
| Influenza c virus-PB1 | 241 RAI <span style="background-color: yellow;">ATPGMIVR</span> P <span style="background-color: yellow;">FSKIVET</span> VAQ <span style="background-color: yellow;">KICE</span> KL <span style="background-color: yellow;">KESGLPVG</span> G <span style="background-color: yellow;">NEKKAKL</span> K <span style="background-color: yellow;">TTV</span> T <span style="background-color: yellow;">SLN</span> ARMNSDQ <span style="background-color: yellow;">F</span>   | 300 |
| TiLV-Segment-1-RDRP   | 210 ---LNGDCT <span style="background-color: yellow;">KYNE</span> AIDAD <span style="background-color: yellow;">TLL</span> KV <span style="background-color: yellow;">WD</span> AI <span style="background-color: yellow;">GMGS</span> I-----GVMLA  | 243 |
| Influenza c virus-PB1 | 301 AVNIT <span style="background-color: yellow;">GDNS</span> <span style="background-color: yellow;">KWN</span> E <span style="background-color: yellow;">CQQPEAY</span> L <span style="background-color: yellow;">ALLAY</span> IT <span style="background-color: yellow;">KDSS</span> DLM <span style="background-color: yellow;">KDL</span> CS <span style="background-color: yellow;">VAP</span> VL <span style="background-color: yellow;">FCNKF</span> V <span style="background-color: yellow;">KL</span> G <span style="background-color: yellow;">QGIR</span> LS <span style="background-color: yellow;">LS</span>   | 360 |
| TiLV-Segment-1-RDRP   | 244 YMVR <span style="background-color: yellow;">RK</span> C <span style="background-color: yellow;">VLIK</span> -----DTLVE-----C--PGGMLMGMF <span style="background-color: yellow;">NATAT</span> --  | 274 |
| Influenza c virus-PB1 | 361 NKRKT <span style="background-color: yellow;">KEV</span> I <span style="background-color: yellow;">KA</span> E <span style="background-color: yellow;">KMG</span> K <span style="background-color: yellow;">YKNL</span> M <span style="background-color: yellow;">RE</span> E <span style="background-color: yellow;">YKNL</span> F <span style="background-color: yellow;">PE</span> LE <span style="background-color: yellow;">KYI</span> Q <span style="background-color: yellow;">KDVCFL</span> P <span style="background-color: yellow;">GGML</span> GM <span style="background-color: yellow;">FN</span> MLST <span style="background-color: yellow;">VL</span> | 420 |
| TiLV-Segment-1-RDRP   | 275 -----LALQ <span style="background-color: yellow;">GTTDR</span> FLSF <span style="background-color: yellow;">SDD</span> FITS <span style="background-color: yellow;">FN</span> SPAE <span style="background-color: yellow;">LRE</span> I <span style="background-color: yellow;">ED</span> LL---FASCH---NLS  | 316 |
| Influenza c virus-PB1 | 421 GV <span style="background-color: yellow;">STLCYMDEEL</span> K <span style="background-color: yellow;">AKGCFWT</span> GL <span style="background-color: yellow;">QS</span> DD <span style="background-color: yellow;">F</span> VL <span style="background-color: yellow;">-FAV</span> AS <span style="background-color: yellow;">NWSNIHWT</span> I <span style="background-color: yellow;">RRFNA</span> V <span style="background-color: yellow;">CKL</span> I <span style="background-color: yellow;">GINMS</span>   | 479 |
| TiLV-Segment-1-RDRP   | 317 LKKSY <span style="background-color: yellow;">ISV</span> AS <span style="background-color: yellow;">LEINS</span> CTL <span style="background-color: yellow;">TRD</span> G <span style="background-color: yellow;">DLA</span> T <span style="background-color: yellow;">GL</span> -----GCTAG <span style="background-color: yellow;">VPFRGPLV</span> TL <span style="background-color: yellow;">KQTA</span> AML <span style="background-color: yellow;">366</span>   | 366 |
| Influenza c virus-PB1 | 480 LEK <span style="background-color: yellow;">SY</span> G <span style="background-color: yellow;">SLPEL</span> -FEFTSMFF <span style="background-color: yellow;">DGEF</span> V <span style="background-color: yellow;">SNL</span> AME <span style="background-color: yellow;">LP</span> A <span style="background-color: yellow;">FT</span> TAG <span style="background-color: yellow;">GV</span> N <span style="background-color: yellow;">EGV</span> D <span style="background-color: yellow;">FTA</span> AM <span style="background-color: yellow;">SI</span> IKTN <span style="background-color: yellow;">MINN</span>   | 538 |
| TiLV-Segment-1-RDRP   | 367 SGAVD <span style="background-color: yellow;">SGVMPFH</span> SAERLF <span style="background-color: yellow;">QIKQQECAYR</span> -----YNNPTY <span style="background-color: yellow;">TTR</span> NEDFLPTCLGGKT <span style="background-color: yellow;">416</span>   | 416 |
| Influenza c virus-PB1 | 539 SLSP <span style="background-color: yellow;">STA</span> MLR <span style="background-color: yellow;">ICLQE</span> FRATY <span style="background-color: yellow;">RVHP</span> DSRV <span style="background-color: yellow;">KGGR</span> M <span style="background-color: yellow;">KI</span> INE <span style="background-color: yellow;">FIKT</span> EN <span style="background-color: yellow;">KDGL</span> LIADGGKL <span style="background-color: yellow;">598</span>  | 598 |
| TiLV-Segment-1-RDRP   | 417 VIS <span style="background-color: yellow;">FQSL</span> -----LTWD-----CH <span style="background-color: yellow;">PF</span> -----WYQV <span style="background-color: yellow;">HPDGP</span> D <span style="background-color: yellow;">TIDQ</span> K--V <span style="background-color: yellow;">447</span>   | 447 |
| Influenza c virus-PB1 | 599 MNNIST <span style="background-color: yellow;">LHI</span> PEEV <span style="background-color: yellow;">LK</span> FEK <span style="background-color: yellow;">MDEQYRN</span> RV <span style="background-color: yellow;">NP</span> KN <span style="background-color: yellow;">PFTNF</span> DK <span style="background-color: yellow;">TIDIFRAH</span> --GPI <span style="background-color: yellow;">RVEENE</span> AV <span style="background-color: yellow;">656</span>   | 656 |
| TiLV-Segment-1-RDRP   | 448 LSV <span style="background-color: yellow;">LASK</span> T <span style="background-color: yellow;">RRRR</span> TR <span style="background-color: yellow;">LEA</span> -----LSD <span style="background-color: yellow;">LDP</span> LV <span style="background-color: yellow;">PHRLL</span> V <span style="background-color: yellow;">SES</span> DV <span style="background-color: yellow;">483</span>  | 483 |
| Influenza c virus-PB1 | 657 V <span style="background-color: yellow;">STHSFR</span> T <span style="background-color: yellow;">RAN</span> R <span style="background-color: yellow;">LL</span> NTDM <span style="background-color: yellow;">RAMMAE</span> E <span style="background-color: yellow;">KRYQM</span> V <span style="background-color: yellow;">CDIF</span> K <span style="background-color: yellow;">SVF</span> E <span style="background-color: yellow;">SADINP</span> --PIGAM <span style="background-color: yellow;">SIGE</span> AI <span style="background-color: yellow;">714</span>   | 714 |
| TiLV-Segment-1-RDRP   | 484 SKIRAAR <span style="background-color: yellow;">QAH</span> L <span style="background-color: yellow;">KSL</span> GLE <span style="background-color: yellow;">QPTNF</span> NYAI <span style="background-color: yellow;">YKAV</span> Q <span style="background-color: yellow;">PTAGC</span> -----519   | 519 |
| Influenza c virus-PB1 | 715 E <span style="background-color: yellow;">EKLLERAKM</span> K <span style="background-color: yellow;">RDIGA</span> I <span style="background-color: yellow;">EDSEYE</span> -E <span style="background-color: yellow;">IKDI</span> IR <span style="background-color: yellow;">DAKK</span> ARLES <span style="background-color: yellow;">R</span> 754  | 754 |