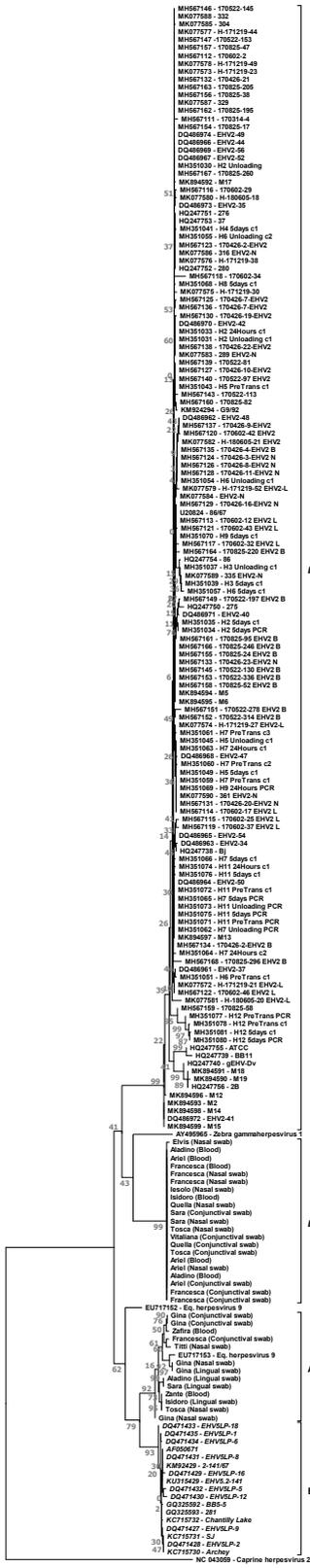


Supplementary Figure S1. Phylogenetic trees of gammaherpesviruses identified in donkeys. Maximum likelihood trees based on the glycoprotein B (gB), terminase (ter), and DNA polymerase (DPOL) genes are shown. The trees were built with MEGAX with partial nucleotide sequences (gB: 405nt, ter: 356nt, DPOL: 182nt) using the maximum likelihood approach with Kimura 2 parameters (gB) or Tamura 3 parameters (DPOL and ter) models, identified as the best fitting models using the modeltest analysis implemented in MEGAX. A discrete Gamma distribution was used to model evolutionary rate differences among sites (+G = 0.4575 for gB, +G = 1.0948 for DPOL, +G = 0.5394 for ter) and branch robustness was evaluated through 1000 bootstrap replicates. Species official (*italics*) or provisory names are indicated when available and sequences obtained in this study are indicated by the name of the donkey while the type of sample is specified in parenthesis.



0.10

Equid gammaherpesvirus 2

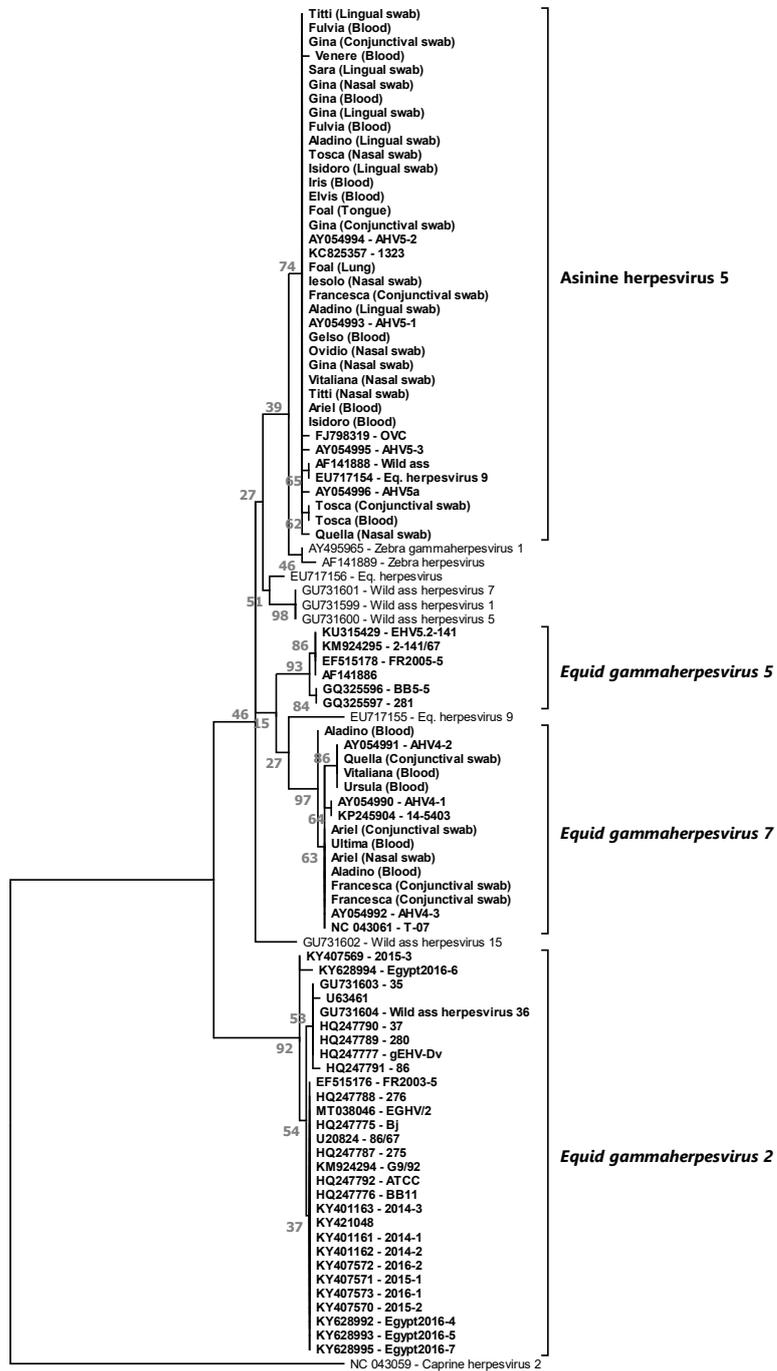
Equid gammaherpesvirus 7

Asinine herpesvirus 5

Equid gammaherpesvirus 5

- MH567146 - 170522-146
- MK075285 - 304
- MK075777 - H-171219-44
- MH567147 - 170522-163
- MH567157 - 170525-47
- MH567112 - 170652-2
- MK075778 - H-171219-49
- MK075773 - H-171219-23
- MH567152 - 170426-21
- MH567163 - 170525-206
- MH567164 - 170525-38
- MK075287 - 329
- MH567167 - 170525-195
- MH567111 - 170314-4
- MH567148 - 170525-17
- DQ488974 - EHV2-48
- DQ488986 - EHV2-44
- DQ488989 - EHV2-58
- DQ488992 - EHV2-52
- MH351030 - H2 Unloading
- MH567167 - 170525-206
- MK849592 - MIT
- MH567118 - 170622-29
- MK077280 - H-180605-18
- DQ488971 - EHV2-35
- HQ247751 - 276
- HQ247753 - 27
- MH351041 - H4 5days c1
- MH351050 - H6 Unloading c2
- MH567123 - 170426-2-EHV2
- MK077598 - H16 EHV2-N
- MK075776 - H-171219-38
- HQ247752 - 200
- MH567119 - 170602-34
- MH351068 - H8 5days c1
- MK077275 - H-171219-30
- MH567120 - 170426-7-EHV2
- MH567136 - 170426-7-EHV2
- MH567130 - 170426-19-EHV2
- DQ488979 - EHV2-42
- MH351033 - H2 24Hours c1
- MH351034 - H2 Unloading c1
- MH567138 - 170426-22-EHV2
- MK077435 - 288 EHV2-N
- MH567139 - 170522-81
- MH567127 - 170426-10-EHV2
- MH567140 - 170522-97 EHV2
- MH351042 - H6 PrioTrans c1
- MH567143 - 170522-113
- MH567169 - 170525-82
- MK849594 - G996
- DQ488982 - EHV2-48
- MH567137 - 170426-9-EHV2
- MH567120 - 170426-2 EHV2
- MK077682 - H-180605-21 EHV2
- MH567135 - 170426-6-EHV2 B
- MH567124 - 170426-3-EHV2 N
- MH567132 - 170426-8-EHV2 N
- MH567128 - 170426-11-EHV2 N
- MH351054 - H6 Unloading c1
- MK077279 - H-171219-52 EHV2-L
- MK077584 - EHV2-N
- MH567129 - 170426-16-EHV2 N
- U9264 - 8687
- MH567113 - 170602-12 EHV2 L
- MH567151 - 170602-48 EHV2 L
- MH351070 - H9 5days c1
- MH567117 - 170602-32 EHV2 L
- MH567164 - 170525-220 EHV2 B
- HQ247764 - 186
- MH351037 - H3 Unloading c1
- MK077080 - 336 EHV2-N
- MH351039 - H3 5days c1
- MH351051 - H5 5days c1
- MH567149 - 170522-197 EHV2 B
- HQ247759 - 271
- DQ488971 - EHV2-40
- MH351036 - H2 5days c1
- MH351034 - H2 5days PCR
- MH567161 - 170525-95 EHV2 B
- MH567166 - 170525-248 EHV2 B
- MH567168 - 170525-24 EHV2 B
- MH567133 - 170426-23-EHV2 N
- MH567145 - 170522-138 EHV2 B
- MH567163 - 170522-336 EHV2 B
- MH567168 - 170525-52 EHV2 B
- MK849594 - M5
- MK849595 - M6
- MH567151 - 170522-278 EHV2 B
- MH567162 - 170522-314 EHV2 B
- MK077674 - H-171219-27 EHV2 L
- MH351067 - H12 PrioTrans c2
- MH351045 - H5 Unloading c1
- MH351063 - H7 24Hours c1
- DQ488968 - EHV2-47
- MH351060 - H7 PrioTrans c2
- MH351049 - H5 5days c1
- MH351059 - H7 PrioTrans c1
- MH351089 - H9 24Hours PCR
- MK077599 - 561 EHV2-N
- MH567131 - 170426-20-EHV2 N
- MH567144 - 170522-17 EHV2 L
- MH567116 - 170602-25 EHV2 L
- MH567119 - 170602-37 EHV2 L
- DQ488965 - EHV2-54
- DQ488963 - EHV2-34
- HQ247738 - B1
- MH351086 - H7 5days c1
- MH351074 - H11 24Hours c1
- MH351078 - H11 5days c1
- DQ488964 - EHV2-50
- MH351072 - H11 PrioTrans c1
- MH351066 - H7 5days PCR
- MH351073 - H11 Unloading PCR
- MH351074 - H11 5days PCR
- MH351071 - H11 PrioTrans PCR
- MH351067 - H7 Unloading PCR
- MK048977 - 13
- MH567134 - 170426-2-EHV2 B
- MH351064 - H7 24Hours c2
- MH567168 - 170525-208 EHV2 B
- DQ488961 - EHV2-37
- MH351051 - H6 PrioTrans c1
- MK077272 - H-171219-21 EHV2 L
- MK077272 - 170602-46 EHV2 L
- MK077281 - H-180605-20 EHV2-L
- MH567159 - 170525-68
- MH351077 - H12 PrioTrans c1
- MH351078 - H12 PrioTrans c1
- MH351081 - H12 5days c1
- MH351090 - H12 5days PCR
- HQ247759 - AT-CC
- HQ247759 - 8811
- HQ247746 - gEHV-Dv
- MK849591 - M18
- MK849590 - M19
- HQ247756 - 28
- MK849590 - M12
- MK849589 - M2
- MK849589 - M4
- DQ488972 - EHV2-41
- MK849589 - M15
- AY469961 - Zabre gammaherpesvirus 1
- Elvis (Nasal swab)
- Adalino (Blood)
- Ariel (Blood)
- Francesca (Blood)
- Francesca (Nasal swab)
- Francesca (Nasal swab)
- Isolde (Nasal swab)
- Isidoro (Blood)
- Quilla (Nasal swab)
- Sara (Conjunctival swab)
- Sara (Nasal swab)
- Tosca (Nasal swab)
- Vitaliana (Conjunctival swab)
- Quilla (Conjunctival swab)
- Tosca (Conjunctival swab)
- Ariel (Blood)
- Ariel (Nasal swab)
- Adalino (Blood)
- Ariel (Conjunctival swab)
- Francesca (Conjunctival swab)
- Francesca (Conjunctival swab)
- EUT71162 - Ea. herpesvirus 9
- Gina (Conjunctival swab)
- Gina (Conjunctival swab)
- Zaira (Blood)
- Francesca (Conjunctival swab)
- Tri (Nasal swab)
- EUT71163 - Ea. herpesvirus 9
- Gina (Lingual swab)
- Adalino (Lingual swab)
- Sara (Lingual swab)
- Zaira (Blood)
- Isidoro (Lingual swab)
- Tosca (Nasal swab)
- Gina (Nasal swab)
- DQ474231 - EHVLP-19
- DQ474232 - EHVLP-15
- DQ474234 - EHVLP-6
- AP050571
- DQ474231 - EHVLP-8
- MH926291 - 2-14187
- DQ474239 - EHVLP-16
- KU013420 - EHV2-2-141
- DQ474239 - EHVLP-5
- DQ474239 - EHVLP-12
- GOJ25589 - BB-5
- GOJ25589 - 191
- KC715732 - Chantilly Lake
- DQ474227 - EHVLP-9
- KC765731 - SJ
- DQ474228 - EHVLP-2
- KC765730 - Archey
- NC 043669 - Caprine herpesvirus 2

DPOL



ter

