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| **Segment** | **Position** | **Human observed Amino Acids (%)** | **Swine observed Amino Acids (%)** | **Transmission** | **Amino Acids (%)** | **Mutations (%)** |
| PB2 | 185 | I(98.1%), V(1.9%) | I(95.2%), V(4.7%), L(0.1%) | human-human | I(98%), V(2%) | NA |
| human-swine | I(98.6%), V(1.4%) | I-V(1.4%) |
| swine-human | I(100%) | NA |
| swine-swine | I(95.8%), V(4.1%), L(0.1%) | I-V(1.1%), I-L(0.1%) |
| 251 | R(93.9%), K(6.1%) | R(61.5%), K(38%), E(0.1%), G(0.1%), I(0.1%) | human-human | R(98.5%), K(1.5%) | R-K(0.5%) |
| human-swine | R(94.6%), K(5.4%) | R-K(5.4%) |
| swine-human | R(76.9%), K(23.1%) | K-R(2.6%) |
| swine-swine | R(58.5%), K(41.2%), E(0.1%), G(0.1%), I(0.1%) | R-K(1.8%), K-R(0.5%), K-E(0.1%), R-G(0.1%), R-I(0.1%) |
| 340 | K(62.9%), R(36.6%), N(0.5%) | K(55.7%), R(39.9%), N(3.3%), D(0.4%), E(0.1%), G(0.1%), M(0.1%), S(0.1%), T(0.1%) | human-human | K(68.2%), R(31.8%) | K-R(2%), R-K(0.2%) |
| human-swine | K(78.4%), R(21.6%) | K-R(2.7%), R-K(1.4%) |
| swine-human | K(53.8%), R(43.6%), N(2.6%) | K-R(2.6%), N-K(2.6%) |
| swine-swine | K(52%), R(43.9%), N(3.3%), D(0.4%), E(0.1%), G(0.1%), M(0.1%), S(0.1%), T(0.1%) | R-K(1.6%), K-R(0.8%), K-N(0.3%), K-E(0.1%), K-T(0.1%), N-D(0.1%), N-K(0.1%), N-S(0.1%), R-G(0.1%), R-M(0.1%) |
| 344 | V(78.4%), M(21.1%), L(0.5%) | V(87.9%), M(10.8%), L(0.7%), I(0.6%) | human-human | V(74.2%), M(25.5%), L(0.2%) | V-M(1%), M-V(0.5%), V-L(0.2%) |
| human-swine | V(64.9%), M(35.1%) | V-M(2.7%) |
| swine-human | V(97.4%), M(2.6%) | M-V(2.6%) |
| swine-swine | V(92.8%), M(6.5%), L(0.4%), I(0.3%) | V-M(1.6%), V-I(0.3%), V-L(0.3%), M-L(0.1%) |
| 432 | H(100%) | H(99%), Y(0.9%), P(0.1%) | human-human | H(100%) | NA |
| human-swine | H(95.9%), Y(2.7%), P(1.4%) | H-Y(2.7%), H-P(1.4%) |
| swine-human | H(100%) | NA |
| swine-swine | H(99.3%), Y(0.7%) | NA |
| 453 | S(39.9%), P(33.8%), H(19.2%), T(7%) | P(67.2%), S(27.5%), H(2.7%), T(1.3%), F(0.9%), Y(0.3%), N(0.1%) | human-human | S(47%), P(22.8%), H(22.5%), T(7.8%) | P-H(0.5%), P-S(0.5%), S-T(0.5%), H-P(0.2%), P-T(0.2%), S-P(0.2%) |
| human-swine | S(59.5%), P(21.6%), H(10.8%), T(5.4%), N(1.4%), Y(1.4%) | S-P(6.8%), H-N(1.4%), S-Y(1.4%), T-P(1.4%) |
| swine-human | P(79.5%), S(20.5%) | P-S(2.6%) |
| swine-swine | P(73.6%), S(23.5%), H(1.5%), F(0.8%), T(0.5%), Y(0.1%) | S-P(1.4%), P-S(0.9%), P-T(0.3%), S-F(0.2%), P-H(0.1%), S-Y(0.1%) |
| 456 | N(67.6%), S(30.5%), D(1.4%), T(0.5%) | N(65.7%), S(24.4%), D(9.7%), A(0.3%) | human-human | N(71%), S(28.7%), D(0.2%) | N-S(0.5%), S-N(0.5%) |
| human-swine | N(73%), S(25.7%), D(1.4%) | N-S(2.7%), S-N(2.7%) |
| swine-human | N(48.7%), S(41%), D(7.7%), T(2.6%) | N-D(2.6%), N-T(2.6%) |
| swine-swine | N(66.1%), S(23.8%), D(9.9%), A(0.2%) | N-D(1.6%), N-S(0.6%), S-N(0.2%), N-A(0.2%), D-N(0.1%) |
| 505 | R(97.2%), Q(1.9%), K(0.9%) | R(95.3%), K(4.4%), Q(0.1%), W(0.1%) | human-human | R(97.5%), Q(2%), K(0.5%) | NA |
| human-swine | R(98.6%), K(1.4%) | R-K(1.4%) |
| swine-human | R(97.4%), K(2.6%) | K-R(2.6%) |
| swine-swine | R(95.3%), K(4.4%), Q(0.2%), W(0.1%) | R-K(0.6%), K-R(0.1%), Q-K(0.1%), R-Q(0.1%), R-W(0.1%) |
| 660 | K(93%), R(7%) | K(93.9%), R(6.1%) | human-human | K(92.5%), R(7.5%) | K-R(0.5%) |
| human-swine | K(83.8%), R(16.2%) | K-R(5.4%), R-K(1.4%) |
| swine-human | K(94.9%), R(5.1%) | K-R(2.6%) |
| swine-swine | K(95.5%), R(4.5%) | K-R(1%) |
| 684 | S(62.4%), A(32.4%), G(2.3%), T(1.9%), X(0.9%) | A(61.3%), S(32.1%), T(3.8%), G(2.1%), N(0.6%), P(0.1%) | human-human | S(72.8%), A(23.8%), T(2%), G(1%), X(0.5%) | A-S(0.5%), S-X(0.5%) |
| human-swine | S(78.4%), A(20.3%), T(1.4%) | A-T(1.4%) |
| swine-human | A(71.8%), S(20.5%), G(7.7%) | T-A(2.6%) |
| swine-swine | A(69.1%), S(25.1%), T(2.8%), G(2.4%), N(0.5%), P(0.1%) | A-T(1.5%), A-S(0.4%), A-G(0.2%), A-P(0.1%), G-S(0.1%), N-G(0.1%) |
| PB1 | 152 | S(85%), L(8.3%), M(4.7%), T(1%), K(0.5%), V(0.5%) | S(51.1%), M(25.8%), L(19.2%), K(1.9%), T(1.3%), A(0.2%), E(0.2%), F(0.2%), V(0.2%) | human-human | S(88.7%), L(8.9%), M(2.4%) | NA |
| human-swine | S(88%), L(9.8%), M(2.2%) | S-L(2.2%), S-M(1.1%) |
| swine-human | S(68.8%), M(12.5%), L(6.2%), T(6.2%), K(3.1%), V(3.1%) | M-V(3.1%) |
| swine-swine | S(43.2%), M(30.7%), L(22.1%), K(2%), T(1.5%), A(0.1%), E(0.1%), F(0.1%), V(0.1%) | L-S(0.4%), S-L(0.4%), M-T(0.3%), L-M(0.2%), K-M(0.1%), L-F(0.1%), M-V(0.1%), S-A(0.1%), S-T(0.1%), T-E(0.1%) |
| 168 | K(99.5%), R(0.5%) | K(98.8%), R(1%), E(0.2%) | human-human | K(100%) | NA |
| human-swine | K(98.9%), R(1.1%) | K-R(1.1%) |
| swine-human | K(96.9%), R(3.1%) | NA |
| swine-swine | K(98.8%), R(1.1%), E(0.1%) | K-E(0.1%), K-R(0.1%) |
| 175 | D(64.8%), N(34.7%), E(0.5%) | D(82.6%), N(16.9%), S(0.3%), E(0.2%) | human-human | D(58.7%), N(41.1%), E(0.3%) | D-N(1.6%), D-E(0.3%), N-D(0.3%) |
| human-swine | D(52.2%), N(46.7%), E(1.1%) | N-D(3.3%), D-E(1.1%) |
| swine-human | D(90.6%), N(9.4%) | D-N(3.1%) |
| swine-swine | D(89.3%), N(10.5%), S(0.2%) | D-N(0.3%), N-D(0.3%), N-S(0.2%) |
| 179 | I(53.4%), M(40.9%), V(5.7%) | M(54.5%), I(43.8%), V(1.7%) | human-human | I(58.9%), M(35.5%), V(5.5%) | I-M(0.8%), M-I(0.5%), M-V(0.3%) |
| human-swine | I(79.3%), M(19.6%), V(1.1%) | I-M(4.3%) |
| swine-human | I(59.4%), M(40.6%) | I-M(3.1%) |
| swine-swine | M(61.7%), I(36.8%), V(1.4%) | I-M(2%), M-I(1%), M-V(0.5%), V-M(0.2%) |
| 216 | S(49.7%), G(46.1%), N(2.6%), C(1%), A(0.5%) | S(56.5%), G(26.1%), N(14.5%), D(1%), C(0.7%), I(0.3%), V(0.3%), A(0.2%), R(0.2%), | human-human | G(56.3%), S(41.3%), C(1.1%), N(1.1%), A(0.3%) | G-S(1.8%), G-A(0.3%), G-C(0.3%), S-G(0.3%), S-N(0.3%) |
| human-swine | G(51.1%), S(42.4%), N(3.3%), D(2.2%), C(1.1%) | G-S(7.6%), G-D(2.2%), C-G(1.1%), G-C(1.1%), G-N(1.1%), S-G(1.1%), S-N(1.1%) |
| swine-human | S(71.9%), G(21.9%), N(6.2%) | NA |
| swine-swine | S(61.5%), G(21.4%), N(15.6%), D(0.5%), C(0.3%), I(0.2%), V(0.2%), A(0.1%), R(0.1%), T(0.1%) | G-S(1.6%), S-N(1.6%), S-G(0.5%), G-D(0.4%), N-S(0.3%), S-C(0.3%), D-N(0.1%), G-A(0.1%), G-V(0.1%), N-I(0.1%), S-I(0.1%), S-R(0.1%), S-T(0.1%), S-V(0.1%) |
| 317 | M(91.7%), I(4.7%), V(3.6%) | M(72.5%), I(14%), V(12.5%), T(0.8%), D(0.2%) | human-human | M(96.1%), I(2.1%), V(1.8%) | NA |
| human-swine | M(90.2%), V(6.5%), I(3.3%) | M-V(5.4%), M-I(3.3%) |
| swine-human | M(78.1%), I(15.6%), V(6.2%) | M-V(6.2%) |
| swine-swine | M(76%), I(13.4%), V(10%), T(0.5%), D(0.1%) | M-V(3.5%), M-I(3%), I-V(0.7%), M-T(0.4%), V-M(0.3%), I-T(0.1%), M-D(0.1%) |
| 336 | I(71%), V(29%) | V(50.9%), I(48.9%), T(0.2%) | human-human | I(76.6%), V(23.4%) | I-V(0.8%), V-I(0.3%) |
| human-swine | I(87%), V(13%) | V-I(1.1%) |
| swine-human | I(65.6%), V(34.4%) | NA |
| swine-swine | V(59.4%), I(40.5%), T(0.1%) | I-V(0.6%), V-I(0.6%), I-T(0.1%) |
| 361 | R(56%), S(25.9%), K(11.9%), N(5.7%), I(0.5%) | S(43.2%), R(36.8%), K(10.6%), N(6.1%), I(2.4%), G(0.8%), T(0.2%) | human-human | R(65%), S(19.5%), K(8.2%), N(7.1%), I(0.3%) | R-K(1.6%), R-S(0.5%), R-I(0.3%) |
| human-swine | R(69.6%), K(16.3%), N(6.5%), S(4.3%), I(2.2%), G(1.1%) | R-K(10.9%), K-R(1.1%), R-G(1.1%), S-R(1.1%) |
| swine-human | R(53.1%), S(21.9%), K(15.6%), N(6.2%), I(3.1%) | S-R(3.1%) |
| swine-swine | S(52.4%), R(30.5%), K(8.4%), N(5.8%), I(2.2%), G(0.5%), T(0.1%) | R-K(1.1%), S-N(0.3%), R-G(0.2%), R-I(0.2%), S-R(0.2%), N-T(0.1%), R-N(0.1%), S-G(0.1%), S-I(0.1%) |
| 374 | A(88.1%), S(9.3%), V(1.6%), E(0.5%), T(0.5%) | A(84.1%), S(11.5%), T(2.5%), V(1%), E(0.7%), I(0.2%) | human-human | A(86.3%), S(12.1%), V(1.6%) | A-S(0.5%) |
| human-swine | A(70.7%), S(23.9%), E(2.2%), I(1.1%), T(1.1%), V(1.1%) | A-E(2.2%), A-S(2.2%), A-T(1.1%), V-I(1.1%) |
| swine-human | A(81.2%), S(9.4%), E(3.1%), T(3.1%), V(3.1%) | A-E(3.1%), A-T(3.1%), A-V(3.1%) |
| swine-swine | A(88%), S(9.3%), T(1.7%), V(0.7%), E(0.3%) | A-T(1.3%), A-V(0.3%), A-S(0.2%), A-E(0.1%) |
| 375 | S(79.8%), N(10.9%), D(6.2%), G(2.6%), E(0.5%) | S(50.8%), D(21.6%), N(17.9%), Y(5.1%), G(3.2%), T(0.7%), V(0.3%), C(0.2%), H(0.2%) | human-human | S(84.5%), N(10%), G(2.9%), D(2.6%) | S-N(1.1%), D-N(0.3%), N-D(0.3%) |
| human-swine | S(87%), N(9.8%), D(2.2%), G(1.1%) | S-N(5.4%), D-N(1.1%), S-D(1.1%) |
| swine-human | S(75%), D(15.6%), E(3.1%), G(3.1%), N(3.1%) | D-E(3.1%), D-S(3.1%), G-S(3.1%) |
| swine-swine | S(42.7%), D(27.9%), N(18.9%), Y(6%), G(3.5%), T(0.5%), V(0.2%), C(0.1%), H(0.1%), K(0.1%) | D-N(1.7%), S-N(0.8%), D-G(0.5%), N-S(0.5%), N-D(0.4%), D-Y(0.3%), N-T(0.3%), G-D(0.2%), G-S(0.2%), Y-N(0.2%), D-H(0.1%), D-V(0.1%), N-K(0.1%), S-G(0.1%), S-V(0.1%), Y-C(0.1%), Y-S(0.1%) |
| 433 | K(77.2%), R(22.3%), N(0.5%) | K(72.8%), R(26.3%), N(0.8%) | human-human | K(82.6%), R(17.4%) | K-R(0.8%), R-K(0.3%) |
| human-swine | K(71.7%), R(28.3%) | K-R(1.1%) |
| swine-human | R(56.2%), K(40.6%), N(3.1%) | K-R(3.1%) |
| swine-swine | K(73.2%), R(25.7%), N(1%) | K-R(0.7%), R-K(0.5%), K-N(0.1%) |
| 633 | S(88.1%), N(11.4%), C(0.5%) | S(64.6%), N(34.1%), T(0.5%), G(0.3%), R(0.3%), Y(0.2%) | human-human | S(95%), N(5%) | S-N(0.3%) |
| human-swine | S(90.2%), N(6.5%), G(1.1%), R(1.1%), T(1.1%) | S-N(4.3%), S-G(1.1%), S-R(1.1%), S-T(1.1%) |
| swine-human | S(65.6%), N(31.2%), C(3.1%) | S-C(3.1%), S-N(3.1%) |
| swine-swine | S(60.5%), N(38.8%), T(0.4%), G(0.1%), R(0.1%), Y(0.1%) | S-N(1.4%), N-S(0.3%), N-Y(0.1%), S-G(0.1%), S-R(0.1%) |
| 741 | S(68.9%), A(19.2%), T(9.8%), V(2.1%) | S(50.4%), A(46.9%), T(1.2%), V(1.2%), Y(0.3%) | human-human | S(73.7%), A(15.3%), T(9.7%), V(1.3%) | A-T(0.3%), A-V(0.3%), S-A(0.3%), T-A(0.3%) |
| human-swine | S(88%), A(9.8%), T(1.1%), Y(1.1%) | A-S(1.1%), S-Y(1.1%) |
| swine-human | S(71.9%), A(25%), V(3.1%) | NA |
| swine-swine | A(55.7%), S(42.2%), V(1.2%), T(0.7%), Y(0.1%) | A-T(0.5%), A-S(0.4%), S-A(0.4%), A-V(0.3%), S-Y(0.1%) |
| PB1-F2 | 4 | E(82.4%), G(17.1%), X(0.5%) | E(60.7%), G(39%), V(0.3%) | human-human | E(85.8%), G(13.9%), X(0.3%) | E-G(1.1%), G-E(1.1%), E-X(0.3%) |
| human-swine | E(88%), G(12%) | E-G(4.3%) |
| swine-human | E(78.1%), G(21.9%) | NA |
| swine-swine | E(53.1%), G(46.6%), V(0.3%) | G-E(2.6%), E-G(1.1%), E-V(0.1%) |
| 7 | T(96.4%), I(3.1%), X(0.5%) | T(94.9%), I(5.1%) | human-human | T(98.7%), I(1.1%), X(0.3%) | T-X(0.3%) |
| human-swine | T(98.9%), I(1.1%) | T-I(1.1%) |
| swine-human | T(87.5%), I(12.5%) | NA |
| swine-swine | T(94.5%), I(5.5%) | T-I(0.6%), I-T(0.1%) |
| 9 | W(96.9%), X(3.1%) | W(95.3%), X(3.9%), L(0.5%), C(0.2%), S(0.2%) | human-human | W(98.2%), X(1.8%) | W-X(0.3%) |
| human-swine | W(94.6%), X(4.3%), L(1.1%) | W-X(2.2%), W-L(1.1%) |
| swine-human | W(90.6%), X(9.4%) | W-X(3.1%) |
| swine-swine | W(97%), X(2.5%), L(0.2%), C(0.1%), S(0.1%) | W-X(1.5%), W-L(0.2%), W-C(0.1%), W-S(0.1%) |
| 10 | T(78.2%), I(18.7%), X(3.1%) | T(87%), I(8.8%), X(4%), S(0.2%) | human-human | T(78.4%), I(19.7%), X(1.8%) | I-T(0.3%), T-I(0.3%), T-X(0.3%) |
| human-swine | T(85.9%), I(9.8%), X(4.3%) | T-I(2.2%), T-X(2.2%), I-T(1.1%) |
| swine-human | T(84.4%), X(9.4%), I(6.2%) | T-X(3.1%) |
| swine-swine | T(89.5%), I(7.7%), X(2.6%), S(0.1%) | T-X(1.4%), T-I(1.1%), I-X(0.2%), T-S(0.1%) |
| 11 | Q(78.8%), L(11.9%), R(5.7%), X(3.1%), P(0.5%) | Q(54.1%), R(33.4%), L(7.1%), X(4.2%), P(1.2%) | human-human | Q(81.8%), L(13.2%), R(3.2%), X(1.8%) | L-Q(0.5%), Q-X(0.3%) |
| human-swine | Q(81.5%), L(7.6%), R(5.4%), X(4.3%), P(1.1%) | Q-R(3.3%), Q-X(2.2%), Q-L(1.1%), Q-P(1.1%) |
| swine-human | Q(71.9%), R(9.4%), X(9.4%), L(6.2%), P(3.1%) | Q-P(3.1%), Q-X(3.1%) |
| swine-swine | Q(47.1%), R(42.5%), L(6.9%), X(2.7%), P(0.7%) | R-Q(3%), Q-X(0.9%), R-L(0.7%), Q-R(0.5%), R-X(0.5%), L-X(0.3%), Q-P(0.3%), Q-L(0.2%), L-P(0.1%), L-Q(0.1%), L-R(0.1%), R-P(0.1%) |
| 16 | X(41.5%), T(34.7%), I(23.8%) | I(38.4%), X(31.9%), T(29.7%) | human-human | X(47.9%), T(32.1%), I(20%) | T-I(0.8%), I-T(0.5%), T-X(0.5%) |
| human-swine | X(62%), T(29.3%), I(8.7%) | T-I(1.1%) |
| swine-human | T(53.1%), X(28.1%), I(18.8%) | T-X(6.2%), I-T(3.1%) |
| swine-swine | I(46.9%), T(29.8%), X(23.3%) | I-T(1.8%), T-X(1.5%), I-X(1.1%), T-I(0.7%), X-T(0.1%) |
| 27 | X(42%), T(39.4%), I(18.7%) | T(55.8%), X(33.6%), I(10.3%), A(0.3%) | human-human | X(48.2%), T(30%), I(21.8%) | I-X(0.8%), I-T(0.3%), T-I(0.3%) |
| human-swine | X(62%), I(21.7%), T(16.3%) | T-I(1.1%) |
| swine-human | T(65.6%), X(28.1%), I(6.2%) | T-X(6.2%), T-I(3.1%) |
| swine-swine | T(66.9%), X(24.3%), I(8.5%), A(0.2%) | T-X(3.1%), T-I(1%), I-X(0.7%), I-T(0.5%), T-A(0.2%), X-T(0.2%) |
| 34 | X(42%), N(32.1%), S(25.9%) | S(58%), X(33.6%), N(8.4%) | human-human | X(48.2%), N(31.8%), S(20%) | S-X(0.5%), N-S(0.3%), N-X(0.3%), S-N(0.3%) |
| human-swine | X(62%), S(25%), N(13%) | N-S(1.1%) |
| swine-human | S(65.6%), X(28.1%), N(6.2%) | S-X(6.2%) |
| swine-swine | S(69.8%), X(24.3%), N(5.9%) | S-X(3.8%), S-N(1.4%), X-N(0.1%), X-S(0.1%) |
| 45 | X(41.5%), I(38.3%), T(20.2%) | T(37.1%), X(36.3%), I(26.5%), A(0.2%) | human-human | X(47.9%), I(37.1%), T(15%) | I-X(0.5%) |
| human-swine | X(64.1%), I(33.7%), T(2.2%) | I-X(1.1%), T-X(1.1%) |
| swine-human | I(46.9%), X(28.1%), T(25%) | I-X(6.2%) |
| swine-swine | T(47.1%), X(26.8%), I(26%), A(0.1%) | T-X(2.5%), I-X(1.8%), I-T(0.8%), T-I(0.8%), X-I(0.2%), T-A(0.1%) |
| 73 | X(52.3%), R(32.6%), K(15%) | X(44.9%), K(31.5%), R(22.8%), I(0.7%), T(0.2%) | human-human | X(56.8%), R(33.2%), K(10%) | R-X(1.1%), K-X(0.5%), R-K(0.5%), K-R(0.3%) |
| human-swine | X(67.4%), R(30.4%), K(2.2%) | R-X(3.3%), K-X(1.1%) |
| swine-human | R(46.9%), X(31.2%), K(21.9%) | K-R(6.2%), R-K(3.1%), R-X(3.1%) |
| swine-swine | K(42.1%), X(34.5%), R(22.7%), I(0.5%), T(0.2%) | K-X(4.1%), R-X(2.2%), K-R(0.5%), R-K(0.3%), R-I(0.2%), K-I(0.1%), K-T(0.1%), T-X(0.1%), X-K(0.1%), X-R(0.1%) |
| 87 | X(60.1%), G(28.5%), E(11.4%) | X(55.1%), E(23.9%), G(20.9%) | human-human | X(63.2%), G(28.4%), E(8.4%) | G-X(1.3%), E-X(0.5%), G-E(0.3%) |
| human-swine | X(77.2%), G(20.7%), E(2.2%) | G-X(3.3%), E-X(1.1%), G-E(1.1%) |
| swine-human | X(46.9%), G(40.6%), E(12.5%) | E-G(3.1%), G-X(3.1%), X-E(3.1%) |
| swine-swine | X(43.6%), E(33.9%), G(22.5%) | E-X(5.3%), G-X(2.7%), E-G(0.8%), G-E(0.7%), X-E(0.1%), X-G(0.1%) |
| PA | 38 | I(99.1%), X(0.9%) | I(98.1%), V(1.5%), T(0.2%), X(0.2%) | human-human | I(99.5%), X(0.5%) | I-X(0.5%) |
| human-swine | I(98.9%), V(1.1%) | I-V(1.1%) |
| swine-human | I(100%) | NA |
| swine-swine | I(98.7%), V(1.1%), T(0.1%), X(0.1%) | I-T(0.1%), I-V(0.1%), I-X(0.1%) |
| 44 | V(95.3%), I(3.7%), X(0.9%) | V(91.2%), I(7.9%), A(0.6%), M(0.2%), X(0.2%) | human-human | V(97.7%), I(1.8%), X(0.5%) | V-X(0.5%), V-I(0.2%) |
| human-swine | V(96.6%), I(3.4%) | V-I(1.1%) |
| swine-human | V(89.3%), I(10.7%) | NA |
| swine-swine | V(92.2%), I(7.2%), A(0.4%), M(0.1%), X(0.1%) | V-I(1.4%), V-A(0.3%), I-V(0.1%), V-M(0.1%), V-X(0.1%) |
| 61 | I(92.6%), T(6%), M(0.5%), V(0.5%), X(0.5%) | I(71.1%), T(21.6%), V(5.9%), M(0.8%), K(0.5%), R(0.2%) | human-human | I(97.7%), T(1.6%), M(0.2%), V(0.2%), X(0.2%) | I-M(0.2%), I-V(0.2%), I-X(0.2%) |
| human-swine | I(94.3%), V(3.4%), M(1.1%), T(1.1%) | I-M(1.1%), I-V(1.1%) |
| swine-human | I(67.9%), T(28.6%), V(3.6%) | NA |
| swine-swine | I(69.3%), T(25.8%), V(4.1%), K(0.4%), M(0.4%), R(0.1%) | I-V(1.4%), I-T(0.5%), T-I(0.4%), I-M(0.2%), I-R(0.1%), T-K(0.1%), V-I(0.1%) |
| 85 | T(53%), I(41.9%), N(4.2%), S(0.5%), X(0.5%) | T(59.1%), I(30.4%), N(5.9%), A(3.4%), V(0.6%), S(0.5%), G(0.2%) | human-human | I(52.6%), T(43.3%), N(3.8%), X(0.2%) | I-T(0.2%), T-I(0.2%), T-X(0.2%) |
| human-swine | I(69.3%), T(22.7%), N(6.8%), V(1.1%) | I-T(2.3%), I-V(1.1%), T-N(1.1%) |
| swine-human | T(78.6%), I(14.3%), N(3.6%), S(3.6%) | N-S(3.6%) |
| swine-swine | T(70.1%), I(21.5%), N(5.3%), A(2.5%), S(0.3%), V(0.3%), G(0.1%) | T-A(1.3%), T-N(0.8%), T-I(0.4%), I-T(0.3%), I-V(0.3%), N-S(0.2%), I-A(0.1%), T-G(0.1%), T-S(0.1%) |
| 208 | T(82.3%), K(13.5%), S(3.7%), R(0.5%) | T(54.2%), K(42.1%), R(1.2%), A(1.1%), S(0.8%), I(0.3%), N(0.3%) | human-human | T(88.3%), K(7.4%), S(4.3%) | T-K(0.2%), T-S(0.2%) |
| human-swine | T(81.8%), K(13.6%), A(2.3%), S(2.3%) | T-K(4.5%), T-A(2.3%) |
| swine-human | T(53.6%), K(42.9%), R(3.6%) | K-R(3.6%) |
| swine-swine | K(49.4%), T(48.3%), R(1%), A(0.6%), S(0.4%), I(0.2%), N(0.2%) | K-R(0.5%), T-K(0.5%), K-T(0.3%), T-A(0.3%), T-I(0.2%), K-N(0.1%), R-K(0.1%), T-N(0.1%) |
| 267 | P(93.5%), S(5.1%), L(0.9%), H(0.5%) | P(74.4%), S(21.5%), L(3.4%), H(0.3%), A(0.2%), Q(0.2%), Y(0.2%) | human-human | P(98.4%), S(1.1%), L(0.5%) | S-P(0.2%) |
| human-swine | P(100%) | NA |
| swine-human | P(64.3%), S(32.1%), H(3.6%) | P-H(3.6%) |
| swine-swine | P(68.7%), S(27.7%), L(3.1%), H(0.2%), A(0.1%), Q(0.1%), Y(0.1%) | S-P(1.7%), P-L(1%), P-S(0.8%), P-H(0.2%), L-S(0.1%), P-Q(0.1%), S-A(0.1%), S-Y(0.1%) |
| 275 | P(57.2%), L(40.5%), R(1.9%), S(0.5%) | P(61.1%), L(37.8%), A(0.3%), H(0.3%), R(0.3%), F(0.2%) | human-human | L(51.9%), P(47%), R(0.9%), S(0.2%) | L-P(0.5%), P-S(0.2%) |
| human-swine | L(70.5%), P(28.4%), R(1.1%) | L-P(3.4%), L-R(1.1%), P-L(1.1%) |
| swine-human | P(78.6%), L(21.4%) | NA |
| swine-swine | P(69.3%), L(30.1%), A(0.2%), H(0.2%), F(0.1%), R(0.1%) | P-L(1.2%), L-P(1.1%), P-A(0.2%), P-H(0.2%), L-F(0.1%), P-R(0.1%) |
| 354 | I(97.7%), V(1.9%), T(0.5%) | I(93.2%), T(3.1%), V(2.9%), L(0.6%), F(0.2%) | human-human | I(98.2%), V(1.6%), T(0.2%) | I-T(0.2%) |
| human-swine | I(98.9%), V(1.1%) | I-V(1.1%) |
| swine-human | I(100%) | V-I(3.6%) |
| swine-swine | I(94%), T(2.8%), V(2.2%), L(0.9%), F(0.1%) | I-V(0.8%), I-T(0.5%), I-L(0.1%), T-F(0.1%), V-I(0.1%) |
| 362 | K(51.2%), R(48.8%) | K(55.1%), R(44.9%) | human-human | R(56.2%), K(43.8%) | R-K(0.7%) |
| human-swine | R(79.5%), K(20.5%) | R-K(4.5%) |
| swine-human | K(53.6%), R(46.4%) | R-K(3.6%) |
| swine-swine | K(61.3%), R(38.7%) | R-K(2.1%), K-R(0.3%) |
| 407 | V(59.1%), I(40.5%), M(0.5%) | V(56.2%), I(43.8%) | human-human | V(63.4%), I(36.3%), M(0.2%) | V-I(0.5%), I-M(0.2%), I-V(0.2%) |
| human-swine | V(80.7%), I(19.3%) | V-I(6.8%) |
| swine-human | V(67.9%), I(32.1%) | I-V(3.6%), V-I(3.6%) |
| swine-swine | V(50.3%), I(49.7%) | I-V(1.7%), V-I(1.7%) |
| 497 | K(89.3%), R(10.7%) | K(91.5%), R(8.2%), I(0.2%), T(0.2%) | human-human | K(91%), R(9%) | NA |
| human-swine | K(87.5%), R(12.5%) | NA |
| swine-human | K(82.1%), R(17.9%) | NA |
| swine-swine | K(93.1%), R(6.7%), I(0.1%), T(0.1%) | K-R(0.6%), K-I(0.1%), K-T(0.1%) |
| 505 | I(82.3%), V(17.2%), X(0.5%) | I(61.6%), V(38.4%) | human-human | I(90.7%), V(9.3%) | I-V(0.5%), V-I(0.2%) |
| human-swine | I(92%), V(8%) | I-V(3.4%) |
| swine-human | V(50%), I(46.4%), X(3.6%) | I-X(3.6%) |
| swine-swine | I(53.3%), V(46.7%) | V-I(1.1%), I-V(0.4%) |
| 581 | M(96.3%), L(3.7%) | M(99.4%), V(0.3%), I(0.2%), L(0.2%) | human-human | M(96.6%), L(3.4%) | M-L(0.2%) |
| human-swine | M(98.9%), L(1.1%) | NA |
| swine-human | M(100%) | NA |
| swine-swine | M(99.7%), V(0.2%), I(0.1%) | M-V(0.2%), M-I(0.1%) |
| PA-X | 44 | V(95.3%), I(3.7%), X(0.9%) | V(91.2%), I(7.9%), A(0.6%), M(0.2%), X(0.2%) | human-human | V(97.7%), I(1.8%), X(0.5%) | V-X(0.5%), V-I(0.2%) |
| human-swine | V(96.6%), I(3.4%) | V-I(1.1%) |
| swine-human | V(89.3%), I(10.7%) | NA |
| swine-swine | V(92.2%), I(7.2%), A(0.4%), M(0.1%), X(0.1%) | V-I(1.4%), V-A(0.3%), I-V(0.1%), V-M(0.1%), V-X(0.1%) |
| 61 | I(92.6%), T(6%), M(0.5%), V(0.5%), X(0.5%) | I(71.1%), T(21.6%), V(5.9%), M(0.8%), K(0.5%), R(0.2%) | human-human | I(97.7%), T(1.6%), M(0.2%), V(0.2%), X(0.2%) | I-M(0.2%), I-V(0.2%), I-X(0.2%) |
| human-swine | I(94.3%), V(3.4%), M(1.1%), T(1.1%) | I-M(1.1%), I-V(1.1%) |
| swine-human | I(67.9%), T(28.6%), V(3.6%) | NA |
| swine-swine | I(69.3%), T(25.8%), V(4.1%), K(0.4%), M(0.4%), R(0.1%) | I-V(1.4%), I-T(0.5%), T-I(0.4%), I-M(0.2%), I-R(0.1%), T-K(0.1%), V-I(0.1%) |
| 66 | G(67.9%), D(19.5%), S(6%), E(5.6%), X(0.9%) | G(79.8%), S(13.1%), D(5.6%), N(0.6%), A(0.3%), E(0.3%), I(0.2%), X(0.2%) | human-human | G(71.3%), D(19.4%), E(5.6%), S(3.2%), X(0.5%) | G-D(0.7%), D-X(0.5%), D-E(0.2%), G-S(0.2%) |
| human-swine | G(84.1%), D(10.2%), S(2.3%), A(1.1%), E(1.1%), X(1.1%) | G-D(3.4%), G-A(1.1%), G-S(1.1%), G-X(1.1%) |
| swine-human | G(89.3%), S(7.1%), D(3.6%) | NA |
| swine-swine | G(79.5%), S(15.4%), D(4.2%), N(0.5%), A(0.2%), E(0.1%), I(0.1%) | G-S(0.8%), G-D(0.7%), S-G(0.3%), S-N(0.2%), D-E(0.1%), D-G(0.1%), S-I(0.1%) |
| 85 | T(53%), I(41.9%), N(4.2%), S(0.5%), X(0.5%) | T(59.1%), I(30.4%), N(5.9%), A(3.4%), V(0.6%), S(0.5%), G(0.2%) | human-human | I(52.6%), T(43.3%), N(3.8%), X(0.2%) | I-T(0.2%), T-I(0.2%), T-X(0.2%) |
| human-swine | I(69.3%), T(22.7%), N(6.8%), V(1.1%) | I-T(2.3%), I-V(1.1%), T-N(1.1%) |
| swine-human | T(78.6%), I(14.3%), N(3.6%), S(3.6%) | N-S(3.6%) |
| swine-swine | T(70.1%), I(21.5%), N(5.3%), A(2.5%), S(0.3%), V(0.3%), G(0.1%) | T-A(1.3%), T-N(0.8%), T-I(0.4%), I-T(0.3%), I-V(0.3%), N-S(0.2%), I-A(0.1%), T-G(0.1%), T-S(0.1%) |
| 184 | S(74%), N(14%), I(8.4%), G(2.3%), T(1.4%) | S(59.7%), I(32.6%), N(3.4%), T(2.6%), G(0.6%), L(0.6%), V(0.3%), A(0.2%) | human-human | S(80.4%), N(14.7%), I(2.9%), G(1.6%), T(0.5%) | N-S(0.2%), S-N(0.2%) |
| human-swine | S(88.6%), N(6.8%), G(3.4%), I(1.1%) | S-N(2.3%), S-G(1.1%) |
| swine-human | S(53.6%), I(35.7%), T(7.1%), G(3.6%) | S-G(3.6%) |
| swine-swine | S(52.7%), I(41.3%), T(2.8%), N(2.4%), L(0.4%), V(0.3%), A(0.1%), G(0.1%) | I-T(0.6%), I-L(0.4%), S-N(0.4%), I-S(0.3%), T-I(0.3%), S-I(0.2%), I-V(0.1%), N-S(0.1%), S-G(0.1%), T-A(0.1%) |
| 206 | K(59.5%), R(38.6%), T(1.9%) | K(64%), R(34.6%), T(0.9%), N(0.3%), Q(0.2%) | human-human | R(49.7%), K(49%), T(1.4%) | R-K(0.7%) |
| human-swine | R(65.9%), K(34.1%) | R-K(6.8%) |
| swine-human | K(75%), R(25%) | K-R(3.6%), R-K(3.6%) |
| swine-swine | K(72%), R(26.7%), T(1.1%), N(0.2%), Q(0.1%) | K-R(1.2%), R-K(1.1%), K-N(0.2%), K-Q(0.1%), K-T(0.1%) |
| 208 | Q(82.3%), R(8.8%), K(5.1%), P(2.3%), L(0.9%), E(0.5%) | Q(52.6%), R(31.9%), K(12.2%), G(1.2%), P(0.8%), X(0.8%), M(0.3%), L(0.2%) | human-human | Q(90.5%), K(4.1%), R(3.4%), P(1.6%), L(0.5%) | Q-K(0.2%) |
| human-swine | Q(81.8%), K(11.4%), R(3.4%), P(2.3%), X(1.1%) | Q-K(4.5%), K-R(1.1%), Q-R(1.1%), Q-X(1.1%) |
| swine-human | Q(46.4%), R(35.7%), K(10.7%), E(3.6%), P(3.6%) | R-E(3.6%) |
| swine-swine | Q(46.8%), R(40.9%), K(10.2%), G(1%), P(0.4%), X(0.4%), M(0.2%), L(0.1%) | R-K(1.8%), Q-R(0.5%), R-G(0.5%), Q-K(0.4%), Q-X(0.3%), R-Q(0.3%), R-M(0.2%), G-R(0.1%), Q-L(0.1%), Q-P(0.1%) |
| 212 | A(80.9%), I(8.8%), E(5.1%), V(3.3%), S(1.4%), L(0.5%) | A(51.1%), I(22.2%), V(12.7%), E(4.9%), S(2.8%), T(2.8%), L(1.9%), X(1.2%), G(0.3%) | human-human | A(89.8%), E(4.5%), I(3.4%), V(1.8%), S(0.5%) | A-V(0.5%), A-E(0.2%) |
| human-swine | A(85.2%), E(8%), I(3.4%), S(1.1%), V(1.1%), X(1.1%) | A-E(2.3%), A-I(2.3%), A-S(1.1%), A-V(1.1%), A-X(1.1%) |
| swine-human | A(46.4%), I(35.7%), S(7.1%), E(3.6%), L(3.6%), V(3.6%) | NA |
| swine-swine | A(44.4%), I(26.5%), V(16.3%), E(4.3%), S(2.9%), T(2.2%), L(2%), X(0.8%), G(0.3%), R(0.2%) | A-V(0.8%), I-T(0.6%), V-I(0.6%), A-E(0.4%), V-A(0.4%), A-X(0.3%), I-V(0.3%), A-T(0.2%), E-X(0.1%), I-A(0.1%), I-L(0.1%), I-R(0.1%), S-I(0.1%), S-X(0.1%), V-G(0.1%), V-L(0.1%), V-T(0.1%) |
| 220 | H(73%), R(27%) | H(67.6%), R(28.2%), L(2%), X(1.2%), P(0.8%), Y(0.2%) | human-human | H(76.3%), R(23.5%), P(0.2%) | R-H(0.5%), H-P(0.2%), H-R(0.2%) |
| human-swine | H(86.4%), R(6.8%), L(3.4%), P(2.3%), X(1.1%) | H-L(3.4%), H-R(3.4%), R-H(2.3%), H-X(1.1%) |
| swine-human | H(64.3%), R(35.7%) | R-H(3.6%) |
| swine-swine | H(61.2%), R(36.6%), L(1%), X(0.8%), P(0.4%), Y(0.1%) | R-H(3%), R-L(0.8%), H-R(0.4%), H-X(0.4%), H-P(0.1%), H-Y(0.1%), R-P(0.1%), R-X(0.1%) |
| 221 | R(80.5%), Q(19.5%) | R(75.6%), Q(19%), L(3.5%), X(1.2%), P(0.6%) | human-human | R(82.2%), Q(17.8%) | R-Q(1.1%), Q-R(0.5%) |
| human-swine | R(80.7%), Q(18.2%), X(1.1%) | R-Q(2.3%), R-X(1.1%) |
| swine-human | R(82.1%), Q(17.9%) | NA |
| swine-swine | R(80.5%), Q(15.4%), L(3%), X(0.8%), P(0.4%) | R-Q(3.7%), R-L(1.1%), R-X(0.3%), Q-X(0.2%), R-P(0.2%), L-P(0.1%), L-R(0.1%), Q-P(0.1%) |
| 231 | P(100%) | P(93.5%), H(3.9%), X(1.2%), L(0.9%), S(0.5%) | human-human | P(100%) | NA |
| human-swine | P(96.6%), H(2.3%), X(1.1%) | P-H(2.3%), P-X(1.1%) |
| swine-human | P(100%) | NA |
| swine-swine | P(95.2%), H(3.1%), X(0.8%), L(0.6%), S(0.3%) | P-H(0.7%), P-L(0.4%), P-X(0.4%), P-S(0.3%) |
| 247 | X(56.3%), L(40.9%), P(2.3%), H(0.5%) | X(53.7%), L(40.3%), P(4.3%), H(1.5%), F(0.2%) | human-human | X(63%), L(34.5%), P(2.5%) | X-L(0.9%), L-X(0.2%) |
| human-swine | X(83%), L(8%), P(8%), F(1.1%) | X-L(2.3%), X-P(2.3%), L-F(1.1%) |
| swine-human | X(50%), L(42.9%), H(3.6%), P(3.6%) | NA |
| swine-swine | L(48.3%), X(46.8%), P(3.4%), H(1.5%) | X-L(1.2%), L-P(0.6%), L-X(0.4%), L-H(0.4%), X-P(0.4%), P-X(0.2%) |
| 250 | X(56.3%), P(37.7%), Q(3.7%), L(2.3%) | X(54%), P(38.4%), Q(5.1%), L(2.5%) | human-human | X(63%), P(32.1%), L(2.5%), Q(2.5%) | X-Q(0.7%), P-Q(0.2%), P-X(0.2%), X-P(0.2%) |
| human-swine | X(84.1%), P(6.8%), L(5.7%), Q(3.4%) | X-Q(3.4%) |
| swine-human | X(50%), P(46.4%), L(3.6%) | NA |
| swine-swine | X(46.9%), P(46.7%), Q(4%), L(2.4%) | X-Q(1.4%), P-Q(0.4%), P-L(0.4%), P-X(0.4%), L-X(0.2%), Q-P(0.2%), Q-X(0.1%), X-P(0.1%) |
| H1 | 7 | V(87.8%), I(8.5%), T(2.7%), A(0.5%), F(0.5%) | V(80.2%), I(17.4%), A(1%), F(0.5%), T(0.5%), L(0.4%) | human-human | V(93.8%), I(4.4%), T(1.8%) | V-I(1.3%) |
| human-swine | V(94.8%), I(3.4%), A(0.9%), L(0.9%) | V-I(1.7%), V-A(0.9%), V-L(0.9%) |
| swine-human | V(79.5%), I(15.4%), A(2.6%), F(2.6%) | V-A(2.6%) |
| swine-swine | V(80.1%), I(17.9%), A(0.9%), F(0.5%), T(0.4%), L(0.2%) | V-I(1.2%), V-A(0.2%), I-T(0.1%), I-V(0.1%), V-F(0.1%), V-L(0.1%), V-T(0.1%) |
| 113 | I(46.8%), A(40.4%), T(5.9%), E(4.8%), N(1.1%), S(1.1%) | A(41.4%), I(29.4%), T(15.5%), S(9.1%), E(1.9%), V(1%), D(0.9%), N(0.6%), F(0.2%), | human-human | I(57.6%), A(34.9%), E(4.7%), T(2.1%), N(0.5%), S(0.3%) | A-S(0.3%), I-A(0.3%) |
| human-swine | I(74.1%), A(14.7%), T(6%), E(4.3%), V(0.9%) | I-T(2.6%), A-T(1.7%), I-V(0.9%) |
| swine-human | I(35.9%), A(33.3%), T(20.5%), E(5.1%), N(2.6%), S(2.6%) | T-E(2.6%), T-N(2.6%) |
| swine-swine | A(47.5%), I(24.6%), T(14.6%), S(9.7%), E(1.4%), V(0.8%), D(0.7%), N(0.3%), F(0.1%), H(0.1%), X(0.1%) | A-T(2.2%), A-S(0.4%), I-T(0.4%), A-D(0.3%), A-V(0.2%), T-A(0.2%), I-N(0.1%), I-V(0.1%), T-S(0.1%), X-A(0.1%), A-E(0.1%), A-H(0.1%), A-N(0.1%), A-X(0.1%), I-A(0.1%), I-F(0.1%), I-S(0.1%), S-F(0.1%), T-I(0.1%), T-N(0.1%) |
| 137 | T(38.3%), E(36.7%), A(17.6%), K(4.8%), S(1.1%), D(0.5%), V(0.5%) | A(41.6%), E(27.3%), T(23%), S(2.1%), K(1.9%), V(1.1%), G(0.8%), R(0.8%), X(0.7%), | human-human | T(47.8%), E(32.6%), A(15%), K(4.7%) | A-T(0.3%), T-A(0.3%), T-E(0.3%) |
| human-swine | T(62.9%), A(15.5%), E(14.7%), K(3.4%), V(1.7%), D(0.9%), S(0.9%) | T-A(3.4%), A-V(1.7%), A-D(0.9%), A-S(0.9%), K-E(0.9%) |
| swine-human | E(28.2%), T(28.2%), A(25.6%), K(5.1%), S(5.1%), D(2.6%), V(2.6%), X(2.6%) | A-E(2.6%), A-T(2.6%), E-K(2.6%) |
| swine-swine | A(48%), E(27.8%), T(17.4%), S(1.9%), K(1.5%), R(0.9%), X(0.7%), G(0.7%), V(0.7%), I(0.2%), D(0.2%), L(0.1%) | A-T(1.7%), A-E(1.2%), T-A(0.6%), A-S(0.4%), A-V(0.3%), E-G(0.2%), T-I(0.2%), E-K(0.2%), K-E(0.2%), E-R(0.1%), G-E(0.1%), X-E(0.1%), A-D(0.1%), A-K(0.1%), A-L(0.1%), E-D(0.1%), E-X(0.1%), R-G(0.1%), T-K(0.1%), T-V(0.1%), T-X(0.1%) |
| 145 | T(35.6%), V(27.7%), S(25.5%), A(5.3%), X(2.7%), I(1.6%), L(1.1%) | T(59.7%), V(16.2%), S(11.4%), A(4.7%), I(3.2%), X(2.4%), P(1%), L(0.9%), K(0.2%), | human-human | S(40.1%), T(26.6%), V(25.8%), A(4.1%), I(1.8%), X(0.8%), L(0.5%), P(0.3%) | A-T(0.3%), I-T(0.3%), S-P(0.3%), T-I(0.3%), V-A(0.3%) |
| human-swine | S(58.6%), T(19%), V(15.5%), P(3.4%), A(1.7%), I(0.9%), W(0.9%) | S-P(2.6%), S-V(0.9%), S-W(0.9%), T-A(0.9%), T-P(0.9%), V-I(0.9%), X-T(0.9%) |
| swine-human | T(56.4%), V(23.1%), X(10.3%), S(5.1%), A(2.6%), L(2.6%) | S-A(2.6%) |
| swine-swine | T(65.8%), V(16.9%), S(5.8%), A(4.3%), I(3%), X(2.5%), L(0.9%), P(0.5%), K(0.2%), M(0.1%) | T-A(0.6%), V-I(0.5%), V-A(0.3%), A-T(0.2%), T-X(0.2%), S-P(0.2%), T-I(0.1%), A-V(0.1%), A-X(0.1%), I-M(0.1%), I-T(0.1%), I-X(0.1%), S-T(0.1%), T-K(0.1%), T-P(0.1%), T-S(0.1%), T-V(0.1%), V-L(0.1%), V-X(0.1%), X-A(0.1%), X-V(0.1%) |
| 157 | A(48.9%), K(23.4%), T(8%), E(7.4%), N(6.4%), V(2.1%), S(1.6%), | A(52.6%), K(13.6%), T(11.7%), V(6.1%), E(6%), N(4.5%), S(2.1%), I(0.9%), R(0.9%), | human-human | A(58.1%), K(24.5%), N(5.4%), E(4.9%), T(3.9%), V(1.6%), S(0.8%), I(0.5%), R(0.3%) | K-E(1.8%), A-K(0.3%), A-T(0.3%), K-N(0.3%), K-R(0.3%), N-S(0.3%) |
| human-swine | A(66.4%), E(8.6%), K(8.6%), T(6%), N(3.4%), V(3.4%), G(0.9%), I(0.9%), R(0.9%), S(0.9%) | A-T(4.3%), A-E(3.4%), A-V(3.4%), N-K(1.7%), A-G(0.9%), A-I(0.9%), A-K(0.9%), A-S(0.9%), K-E(0.9%), K-R(0.9%) |
| swine-human | A(43.6%), T(20.5%), N(10.3%), E(7.7%), K(7.7%), I(2.6%), Q(2.6%), S(2.6%), V(2.6%) | A-S(2.6%), K-E(2.6%) |
| swine-swine | A(56.4%), K(14.7%), T(10.9%), E(5.1%), V(4.9%), N(3.9%), S(1.3%), I(0.9%), R(0.7%), Q(0.6%), D(0.3%), G(0.1%), M(0.1%), X(0.1%) | A-T(2.2%), A-V(1.7%), K-E(1.1%), A-S(0.9%), E-K(0.8%), K-N(0.4%), A-E(0.3%), T-A(0.3%), A-N(0.2%), K-R(0.2%), A-D(0.2%), A-K(0.1%), K-G(0.1%), N-K(0.1%), T-K(0.1%), V-I(0.1%), X-E(0.1%), A-X(0.1%), D-N(0.1%), E-A(0.1%), E-N(0.1%), E-Q(0.1%), I-V(0.1%), K-Q(0.1%), K-X(0.1%), M-K(0.1%), N-D(0.1%), T-E(0.1%), T-I(0.1%), T-S(0.1%), V-M(0.1%) |
| 209 | Q(60.1%), H(34%), K(2.7%), R(2.7%), S(0.5%) | Q(72%), H(15.4%), R(8.4%), K(2.1%), N(0.8%), E(0.6%), S(0.2%), D(0.1%), G(0.1%), L | human-human | Q(65.4%), H(31.3%), R(2.3%), K(0.8%), S(0.3%) | H-S(0.3%), Q-H(0.3%), Q-K(0.3%), Q-R(0.3%), R-H(0.3%) |
| human-swine | Q(81%), H(16.4%), R(1.7%), K(0.9%) | H-R(0.9%), Q-K(0.9%), Q-R(0.9%) |
| swine-human | Q(66.7%), H(25.6%), K(7.7%) | Q-K(2.6%) |
| swine-swine | Q(72%), H(15.8%), R(8.8%), K(2.1%), N(0.5%), E(0.4%), S(0.1%), D(0.1%), G(0.1%), L(0.1%), P(0.1%), T(0.1%), X(0.1%), Y(0.1%) | H-R(0.6%), H-N(0.4%), Q-H(0.4%), Q-K(0.4%), H-Q(0.3%), R-H(0.2%), Q-E(0.1%), Q-R(0.1%), X-H(0.1%), H-D(0.1%), H-P(0.1%), H-X(0.1%), H-Y(0.1%), K-E(0.1%), K-R(0.1%), K-T(0.1%), N-K(0.1%), Q-G(0.1%), Q-L(0.1%) |
| 213 | A(84%), T(14.4%), S(1.6%) | A(53.6%), T(45.1%), S(1%), P(0.1%), V(0.1%), X(0.1%) | human-human | A(90.4%), T(9%), S(0.5%) | A-T(0.3%) |
| human-swine | A(92.2%), T(7.8%) | A-T(2.6%) |
| swine-human | A(69.2%), T(25.6%), S(5.1%) | NA |
| swine-swine | A(49.3%), T(49.3%), S(1.2%), X(0.1%), P(0.1%), V(0.1%) | A-T(1.1%), T-A(0.2%), A-S(0.1%), A-X(0.1%), X-A(0.1%), A-V(0.1%), T-P(0.1%) |
| 318 | E(67%), K(29.8%), N(1.6%), Q(1.6%) | E(82.6%), K(15.9%), Q(0.8%), N(0.3%), G(0.1%), R(0.1%), V(0.1%) | human-human | E(54.5%), K(43.9%), N(1%), Q(0.5%) | E-K(0.5%) |
| human-swine | K(62.9%), E(35.3%), N(1.7%) | K-E(1.7%), K-N(1.7%) |
| swine-human | E(87.2%), K(7.7%), Q(5.1%) | K-Q(2.6%) |
| swine-swine | E(90%), K(8.8%), Q(0.9%), N(0.1%), G(0.1%), R(0.1%), V(0.1%), X(0.1%) | E-K(1.4%), K-E(0.1%), X-E(0.1%), E-G(0.1%), E-V(0.1%), E-X(0.1%), K-R(0.1%) |
| 337 | I(62.8%), V(26.1%), T(10.1%), E(1.1%) | I(69.6%), V(18.9%), T(9.8%), N(0.8%), D(0.6%), E(0.1%), K(0.1%), X(0.1%) | human-human | I(52.2%), V(40.1%), T(7.2%), E(0.5%) | I-T(0.3%), V-T(0.3%) |
| human-swine | V(54.3%), I(35.3%), T(10.3%) | V-I(6%), I-T(1.7%), V-T(0.9%) |
| swine-human | I(71.8%), T(20.5%), V(5.1%), E(2.6%) | D-E(2.6%), I-T(2.6%) |
| swine-swine | I(75.5%), V(14.7%), T(8.3%), D(0.7%), N(0.6%), X(0.1%), E(0.1%), K(0.1%) | I-T(1.4%), I-V(1.2%), V-I(1%), D-N(0.1%), I-X(0.1%), X-I(0.1%), D-E(0.1%), I-K(0.1%), I-N(0.1%), T-I(0.1%) |
| 361 | V(60.6%), I(38.8%), M(0.5%) | I(69.8%), V(29.7%), L(0.4%), M(0.1%) | human-human | V(70.3%), I(29.2%), M(0.5%) | I-M(0.3%), I-V(0.3%), M-V(0.3%), V-I(0.3%) |
| human-swine | V(75%), I(25%) | V-I(6.9%) |
| swine-human | I(64.1%), V(35.9%) | I-V(5.1%) |
| swine-swine | I(77.3%), V(22.4%), L(0.2%), M(0.1%), X(0.1%) | I-V(1.8%), V-I(0.4%), I-L(0.2%), X-V(0.1%), I-M(0.1%), V-L(0.1%), V-X(0.1%) |
| 372 | E(96.8%), D(2.1%), G(1.1%) | E(93.8%), G(3.8%), D(2.2%), A(0.1%), K(0.1%) | human-human | E(99%), D(1%) | E-D(0.3%), G-E(0.3%) |
| human-swine | E(96.6%), G(1.7%), D(0.9%), K(0.9%) | E-G(1.7%), D-E(0.9%), E-D(0.9%), E-K(0.9%) |
| swine-human | E(87.2%), G(7.7%), D(5.1%) | E-G(2.6%), G-E(2.6%) |
| swine-swine | E(93.8%), G(4.2%), D(1.9%), A(0.1%), X(0.1%) | E-D(0.6%), E-G(0.6%), G-E(0.4%), X-E(0.1%), D-E(0.1%), E-A(0.1%), E-X(0.1%) |
| 390 | G(72.9%), E(13.3%), K(11.7%), Q(1.6%), R(0.5%) | G(85.7%), E(5.5%), K(4.4%), R(3.7%), S(0.5%), M(0.1%), T(0.1%) | human-human | G(61%), E(22%), K(16%), Q(1%) | E-G(1%), E-K(0.5%), G-E(0.5%), K-Q(0.3%) |
| human-swine | G(46.6%), E(32.8%), K(18.1%), R(1.7%), T(0.9%) | E-G(4.3%), K-E(2.6%), E-K(1.7%), G-E(0.9%), G-R(0.9%), K-G(0.9%), K-R(0.9%), K-T(0.9%) |
| swine-human | G(92.3%), E(2.6%), K(2.6%), R(2.6%) | NA |
| swine-swine | G(91.1%), R(3.8%), K(2.5%), E(2.1%), S(0.4%), M(0.1%), X(0.1%) | G-R(0.5%), R-K(0.2%), G-E(0.1%), G-S(0.1%), R-G(0.1%), X-G(0.1%), E-K(0.1%), G-K(0.1%), G-M(0.1%), G-X(0.1%), K-E(0.1%) |
| 415 | H(41%), K(35.1%), N(10.1%), S(8%), Q(2.7%), D(1.1%), Y(1.1%), | H(30.6%), N(25.8%), K(21.7%), D(11.6%), S(4.1%), Q(3.7%), R(1.2%), E(0.9%), G(0.3% | human-human | H(50.9%), K(32.6%), S(7.2%), N(4.9%), Q(2.8%), D(0.8%), Y(0.5%), R(0.3%) | N-K(0.5%), K-N(0.3%), K-R(0.3%) |
| human-swine | H(69.8%), K(16.4%), Q(5.2%), S(5.2%), R(1.7%), D(0.9%), N(0.9%) | H-K(0.9%), H-R(0.9%), K-R(0.9%) |
| swine-human | H(33.3%), N(28.2%), K(23.1%), S(5.1%), D(2.6%), E(2.6%), Q(2.6%), Y(2.6%) | H-Y(2.6%), N-S(2.6%) |
| swine-swine | N(27.3%), H(26.4%), K(22.5%), D(15.2%), S(3.7%), Q(3%), E(0.9%), R(0.7%), G(0.2%), I(0.1%), X(0.1%) | D-N(1.6%), K-R(0.4%), H-Q(0.3%), N-S(0.3%), N-D(0.2%), D-E(0.2%), D-G(0.2%), D-S(0.1%), K-N(0.1%), Q-H(0.1%), S-N(0.1%), X-K(0.1%), K-I(0.1%), K-X(0.1%), N-H(0.1%) |
| 456 | S(85.1%), F(7.4%), L(7.4%) | S(60.1%), F(36.3%), L(3.2%), A(0.2%), T(0.1%), Y(0.1%) | human-human | S(90.4%), L(7%), F(2.6%) | L-F(0.3%), S-L(0.3%) |
| human-swine | S(94.8%), L(4.3%), F(0.9%) | NA |
| swine-human | S(74.4%), F(23.1%), L(2.6%) | NA |
| swine-swine | S(55.6%), F(41.4%), L(2.8%), A(0.1%), T(0.1%), X(0.1%), Y(0.1%) | F-L(0.3%), F-S(0.3%), S-F(0.2%), L-F(0.1%), S-A(0.1%), X-S(0.1%), F-Y(0.1%), S-T(0.1%), S-X(0.1%) |
| H3 | 9 | Y(70.2%), C(10.6%), H(7.4%), N(5.3%), Q(5.3%), X(1.1%) | Y(56.1%), C(38.7%), H(2.4%), Q(1.5%), S(0.6%), G(0.3%), N(0.3%) | human-human | Y(82.5%), C(4.8%), N(4.8%), H(4.2%), Q(3.2%), X(0.5%) | C-X(0.5%), Y-N(0.5%) |
| human-swine | Y(85.7%), C(8.6%), H(5.7%) | Y-H(5.7%), Y-C(2.9%) |
| swine-human | C(42.9%), Y(28.6%), H(21.4%), Q(7.1%) | Y-H(14.3%), C-Y(7.1%) |
| swine-swine | Y(52.8%), C(42.5%), H(2.2%), Q(1.6%), S(0.5%), G(0.2%), N(0.2%) | Y-C(1.6%), C-Y(1.3%), Y-H(0.4%), C-G(0.2%), C-S(0.2%), H-Q(0.2%), Y-N(0.2%) |
| 21 | G(97.9%), E(1.1%), R(1.1%) | G(78.4%), E(10.7%), R(8.8%), K(1.5%), S(0.6%) | human-human | G(98.4%), R(1.1%), E(0.5%) | G-E(0.5%), G-R(0.5%) |
| human-swine | G(82.9%), R(8.6%), E(5.7%), K(2.9%) | G-E(5.7%), G-R(5.7%), G-K(2.9%) |
| swine-human | G(100%) | NA |
| swine-swine | G(82.7%), E(9%), R(7.2%), K(0.7%), S(0.4%) | G-E(3.4%), G-R(2.5%), G-S(0.4%), R-K(0.4%), E-K(0.2%), E-R(0.2%), G-K(0.2%), R-G(0.2%) |
| 25 | S(85.1%), N(14.9%) | S(66.5%), N(26.5%), T(3%), G(1.5%), R(1.2%), I(0.9%), C(0.3%) | human-human | S(91.5%), N(8.5%) | NA |
| human-swine | S(91.4%), N(5.7%), R(2.9%) | S-N(5.7%), S-R(2.9%) |
| swine-human | S(64.3%), N(35.7%) | NA |
| swine-swine | S(66.5%), N(27.2%), T(3.2%), G(1.3%), I(0.9%), R(0.7%), C(0.2%) | S-N(3.6%), N-S(0.5%), S-G(0.5%), S-R(0.4%), N-T(0.2%), S-C(0.2%), T-I(0.2%) |
| 47 | N(72.3%), D(26.6%), S(1.1%) | D(66.5%), N(29.6%), S(2.4%), G(0.9%), T(0.6%) | human-human | N(85.7%), D(13.8%), S(0.5%) | D-N(0.5%), N-S(0.5%) |
| human-swine | N(71.4%), D(22.9%), S(5.7%) | N-D(11.4%), N-S(5.7%) |
| swine-human | D(78.6%), N(21.4%) | NA |
| swine-swine | D(71.7%), N(25.8%), S(1.4%), G(0.7%), T(0.4%) | N-D(1.3%), N-S(0.7%), D-G(0.4%), D-N(0.4%) |
| 69 | D(55.3%), N(37.2%), S(3.2%), G(2.1%), K(1.1%), X(1.1%) | N(60.4%), D(22.3%), S(8.2%), K(7%), G(1.5%), T(0.6%) | human-human | D(68.3%), N(29.1%), G(1.6%), S(0.5%), X(0.5%) | D-N(1.6%), D-G(0.5%), N-D(0.5%), N-X(0.5%) |
| human-swine | D(60%), N(37.1%), S(2.9%) | D-N(5.7%) |
| swine-human | N(71.4%), S(21.4%), K(7.1%) | N-S(7.1%) |
| swine-swine | N(63.6%), D(18.2%), S(8.8%), K(7.6%), G(1.3%), T(0.5%) | D-N(1.1%), N-S(0.9%), D-G(0.5%), K-N(0.5%), N-D(0.4%), N-K(0.4%), N-T(0.2%), S-N(0.2%) |
| 108 | K(73.4%), T(14.9%), R(10.6%), N(1.1%) | T(48.5%), K(36%), R(6.7%), E(4%), N(2.7%), G(1.2%), M(0.3%), Q(0.3%), S(0.3%) | human-human | K(84.7%), R(7.9%), T(6.9%), E(0.5%) | K-E(0.5%), K-R(0.5%), K-T(0.5%) |
| human-swine | K(80%), T(14.3%), E(2.9%), R(2.9%) | K-E(2.9%), K-R(2.9%), K-T(2.9%) |
| swine-human | T(57.1%), K(28.6%), N(7.1%), R(7.1%) | NA |
| swine-swine | T(53.3%), K(32.3%), R(6.1%), E(3.4%), N(3.1%), G(1.3%), M(0.2%), Q(0.2%), S(0.2%) | K-R(1.1%), R-K(0.5%), K-N(0.4%), T-K(0.4%), E-G(0.2%), E-Q(0.2%), K-E(0.2%), N-T(0.2%), R-M(0.2%), T-S(0.2%) |
| 117 | D(85.1%), Y(14.9%) | D(53.7%), Y(43.3%), F(1.5%), E(0.9%), H(0.6%) | human-human | D(94.7%), Y(5.3%) | NA |
| human-swine | D(94.3%), Y(5.7%) | NA |
| swine-human | Y(64.3%), D(35.7%) | NA |
| swine-swine | D(49%), Y(49%), F(1.1%), E(0.5%), H(0.4%) | Y-F(0.7%), D-E(0.5%), D-Y(0.5%), Y-H(0.4%) |
| 140 | S(67%), G(22.3%), D(4.3%), N(4.3%), E(2.1%) | S(53.4%), D(15.9%), N(13.1%), G(11.6%), I(3%), R(1.2%), E(0.9%), V(0.6%), A(0.3%) | human-human | S(60.3%), G(29.6%), D(6.3%), E(2.1%), N(1.6%) | G-D(1.1%), D-E(0.5%), D-G(0.5%), G-S(0.5%), S-G(0.5%) |
| human-swine | S(42.9%), G(40%), D(14.3%), N(2.9%) | G-D(5.7%), S-N(2.9%) |
| swine-human | S(85.7%), N(14.3%) | NA |
| swine-swine | S(58.9%), D(14.8%), G(10.3%), N(10.3%), I(3.2%), R(1.3%), E(0.7%), V(0.4%), A(0.2%) | S-N(3.4%), G-D(1.6%), D-N(0.9%), G-S(0.7%), S-G(0.5%), S-I(0.4%), S-R(0.4%), D-E(0.2%), G-A(0.2%), G-E(0.2%), N-D(0.2%), R-V(0.2%), S-D(0.2%), S-V(0.2%) |
| 158 | G(48.9%), R(40.4%), K(6.4%), E(4.3%) | G(59.1%), E(13.7%), K(12.2%), R(11.6%), N(2.7%), A(0.3%), Q(0.3%) | human-human | G(54%), R(42.3%), K(3.2%), E(0.5%) | R-G(1.1%), R-K(1.1%), G-R(0.5%) |
| human-swine | G(71.4%), R(20%), E(5.7%), K(2.9%) | G-E(2.9%), G-R(2.9%), R-G(2.9%) |
| swine-human | G(42.9%), E(28.6%), K(14.3%), R(14.3%) | E-G(7.1%) |
| swine-swine | G(56.2%), E(17.5%), K(13.5%), R(10.5%), N(2%), A(0.2%), Q(0.2%) | E-G(2.2%), E-K(1.3%), G-E(0.9%), K-N(0.9%), G-K(0.5%), G-R(0.5%), R-G(0.5%), K-E(0.4%), K-G(0.4%), E-A(0.2%), E-N(0.2%), G-N(0.2%), K-Q(0.2%), K-R(0.2%), R-K(0.2%) |
| 161 | N(53.2%), S(24.5%), K(22.3%) | N(62.2%), K(26.5%), S(9.1%), I(0.9%), M(0.3%), R(0.3%), X(0.3%), Y(0.3%) | human-human | N(49.7%), K(26.5%), S(23.8%) | N-K(1.6%), N-S(1.1%), K-N(0.5%), S-N(0.5%) |
| human-swine | N(40%), K(31.4%), S(20%), I(5.7%), R(2.9%) | K-N(5.7%), N-K(5.7%), N-S(5.7%), S-I(5.7%), S-N(2.9%), S-R(2.9%) |
| swine-human | N(64.3%), S(21.4%), K(14.3%) | N-S(7.1%) |
| swine-swine | N(67.9%), K(23.8%), S(7.6%), I(0.2%), M(0.2%), X(0.2%), Y(0.2%) | N-K(5%), K-N(2%), N-S(0.5%), S-N(0.4%), K-I(0.2%), K-M(0.2%), K-S(0.2%), N-X(0.2%), N-Y(0.2%), S-K(0.2%) |
| 187 | N(89.4%), K(7.4%), S(2.1%), D(1.1%) | N(81.7%), S(12.8%), D(3.4%), K(1.5%), G(0.3%), I(0.3%) | human-human | N(93.1%), K(6.9%) | K-N(0.5%) |
| human-swine | N(91.4%), D(5.7%), S(2.9%) | N-D(5.7%), N-S(2.9%) |
| swine-human | N(78.6%), S(14.3%), D(7.1%) | N-D(7.1%) |
| swine-swine | N(81.6%), S(14.8%), D(2%), K(1.3%), G(0.2%), I(0.2%) | N-D(1.3%), S-N(0.7%), N-S(0.4%), K-N(0.2%), N-I(0.2%), S-G(0.2%) |
| 210 | L(100%) | L(97.3%), V(1.5%), I(1.2%) | human-human | L(100%) | NA |
| human-swine | L(100%) | NA |
| swine-human | L(100%) | NA |
| swine-swine | L(97.7%), V(1.4%), I(0.9%) | L-I(0.5%), L-V(0.2%) |
| 245 | R(85.1%), I(14.9%) | R(50.3%), I(48.8%), T(0.6%), V(0.3%) | human-human | R(94.7%), I(5.3%) | NA |
| human-swine | R(85.7%), I(14.3%) | R-I(8.6%) |
| swine-human | I(64.3%), R(35.7%) | NA |
| swine-swine | I(54.1%), R(45.4%), T(0.4%), V(0.2%) | I-R(0.4%), I-T(0.4%), R-I(0.4%), I-V(0.2%) |
| 246 | I(95.7%), V(3.2%), M(1.1%) | I(94.5%), V(3.4%), M(2.1%) | human-human | I(96.8%), V(2.6%), M(0.5%) | I-V(1.1%), I-M(0.5%) |
| human-swine | I(91.4%), V(5.7%), M(2.9%) | I-M(2.9%) |
| swine-human | I(100%) | NA |
| swine-swine | I(95.5%), V(3.1%), M(1.4%) | I-M(0.7%), V-I(0.4%), M-V(0.2%) |
| 277 | R(77.7%), Q(19.1%), H(3.2%) | Q(60.7%), R(33.8%), H(3.7%), K(0.9%), E(0.3%), L(0.3%), Y(0.3%) | human-human | R(88.9%), Q(9%), H(2.1%) | R-Q(1.1%), R-H(0.5%) |
|  | R(82.9%), Q(11.4%), H(5.7%) | R-H(5.7%) |
|  | Q(71.4%), R(21.4%), H(7.1%) | NA |
|  | Q(66.1%), R(28.3%), H(4.3%), K(0.7%), E(0.2%), L(0.2%), Y(0.2%) | R-Q(0.9%), H-Q(0.4%), Q-K(0.4%), Q-R(0.4%), H-Y(0.2%), Q-E(0.2%), Q-H(0.2%), Q-L(0.2%), R-H(0.2%) |
| NP | 22 | A(91.9%), T(8.1%) | A(77.7%), T(20.9%), V(1.3%) | human-human | A(95.9%), T(4.1%) | A-T(0.8%) |
| human-swine | A(97%), T(1.5%), V(1.5%) | A-T(1.5%), A-V(1.5%) |
| swine-human | A(68.4%), T(31.6%) | NA |
| swine-swine | A(75.8%), T(23.3%), V(0.9%) | A-T(0.6%), A-V(0.5%), T-A(0.1%) |
| 33 | I(91.4%), V(8.6%) | I(65.6%), V(34.4%) | human-human | I(96.4%), V(3.6%) | I-V(1.1%), V-I(0.3%) |
| human-swine | I(97%), V(3%) | NA |
| swine-human | I(52.6%), V(47.4%) | I-V(5.3%) |
| swine-swine | I(60.1%), V(39.9%) | I-V(1.6%), V-I(0.9%) |
| 53 | E(80.6%), D(19.4%) | E(94.4%), D(5.6%) | human-human | E(78.2%), D(21.8%) | NA |
| human-swine | E(77.3%), D(22.7%) | D-E(3%) |
| swine-human | E(94.7%), D(5.3%) | E-D(5.3%) |
| swine-swine | E(97.2%), D(2.8%) | D-E(0.1%) |
| 61 | I(54.3%), L(40.9%), M(2.7%), V(1.6%), T(0.5%) | I(93.3%), L(5.8%), M(1%) | human-human | I(51.9%), L(44.8%), M(1.7%), V(1.4%), T(0.3%) | I-L(0.6%), I-T(0.3%), I-V(0.3%), L-I(0.3%) |
| human-swine | I(71.2%), L(28.8%) | NA |
| swine-human | I(100%) | NA |
| swine-swine | I(97.3%), L(2.1%), M(0.6%) | I-M(0.6%) |
| 100 | V(62.4%), I(28%), R(9.7%) | R(37.2%), V(35.3%), I(24%), L(1.5%), M(0.8%), K(0.6%), A(0.4%), T(0.2%) | human-human | V(69.3%), I(26.2%), R(4.4%) | I-V(0.6%), V-I(0.6%) |
| human-swine | V(66.7%), I(30.3%), R(3%) | V-I(4.5%), I-V(1.5%) |
| swine-human | R(52.6%), I(26.3%), V(21.1%) | NA |
| swine-swine | R(44%), V(29.5%), I(24%), L(1.3%), M(0.5%), K(0.3%), A(0.2%), T(0.1%) | V-I(1%), I-L(0.6%), I-V(0.6%), I-M(0.5%), R-K(0.3%), V-A(0.2%), I-R(0.1%), I-T(0.1%) |
| 190 | V(50.5%), A(45.7%), T(3.2%), I(0.5%) | A(48.8%), V(45.1%), T(4.8%), I(1%), N(0.2%), S(0.2%) | human-human | A(49.2%), V(48.9%), T(1.9%) | A-T(0.3%), A-V(0.3%) |
| human-swine | A(63.6%), V(33.3%), N(1.5%), T(1.5%) | A-N(1.5%), A-T(1.5%), A-V(1.5%) |
| swine-human | A(47.4%), V(47.4%), I(5.3%) | V-I(5.3%) |
| swine-swine | V(48.6%), A(46.9%), T(3.8%), I(0.6%), S(0.1%) | A-T(1.6%), V-A(1%), A-V(0.7%), T-I(0.2%), V-I(0.2%), A-I(0.1%), A-S(0.1%) |
| 217 | I(41.4%), V(29%), S(21.5%), G(7%), A(1.1%) | I(63%), V(30.7%), S(4%), A(1%), T(0.8%), L(0.4%), G(0.2%) | human-human | I(42%), V(26.8%), S(23.5%), G(6.9%), A(0.8%) | I-V(0.6%), S-G(0.6%), G-S(0.3%), I-S(0.3%), V-A(0.3%), V-I(0.3%) |
| human-swine | I(47%), V(30.3%), S(21.2%), G(1.5%) | I-V(6.1%) |
| swine-human | I(63.2%), V(36.8%) | NA |
| swine-swine | I(66.2%), V(31.2%), S(1.4%), A(0.6%), T(0.5%), L(0.2%) | V-I(2.1%), I-V(1.3%), T-A(0.2%), I-L(0.1%), V-A(0.1%), V-L(0.1%) |
| 343 | V(79.6%), L(20.4%) | V(89.8%), I(6.1%), L(3.8%), P(0.2%) | human-human | V(77.1%), L(22.7%), I(0.3%) | V-L(0.6%), L-V(0.3%), V-I(0.3%) |
| human-swine | V(74.2%), L(19.7%), I(6.1%) | V-I(3%) |
| swine-human | V(100%) | NA |
| swine-swine | V(93.7%), I(4.8%), L(1.4%), P(0.1%) | V-I(1.5%), V-P(0.1%) |
| 357 | K(90.9%), Q(5.4%), R(3.8%) | K(67.4%), Q(31.3%), R(1.3%) | human-human | K(93.4%), Q(3.3%), R(3.3%) | K-R(0.8%) |
| human-swine | K(93.9%), Q(3%), R(3%) | K-R(1.5%) |
| swine-human | K(78.9%), Q(21.1%) | NA |
| swine-swine | K(61.5%), Q(37.8%), R(0.7%) | Q-K(0.9%), K-R(0.2%), Q-R(0.2%) |
| 377 | S(52.2%), N(37.6%), I(8.6%), V(1.1%), R(0.5%) | N(46.3%), I(29.9%), S(16.9%), V(5.6%), M(1.3%) | human-human | S(56.9%), N(38.4%), I(3.9%), V(0.6%), R(0.3%) | S-N(0.3%), S-R(0.3%) |
| human-swine | N(53%), S(43.9%), I(3%) | N-S(1.5%) |
| swine-human | I(47.4%), N(36.8%), S(10.5%), V(5.3%) | NA |
| swine-swine | N(43.3%), I(36%), S(13.4%), V(5.8%), M(1.4%) | I-V(0.9%), S-N(0.7%), N-S(0.5%), I-M(0.2%), N-I(0.1%), S-I(0.1%) |
| 384 | R(75.3%), G(13.4%), K(11.3%) | R(60.1%), K(38%), G(1.9%) | human-human | R(79.6%), G(14.4%), K(6.1%) | R-G(0.6%), R-K(0.3%) |
| human-swine | R(86.4%), G(10.6%), K(3%) | G-R(3%) |
| swine-human | K(52.6%), R(47.4%) | NA |
| swine-swine | R(55.3%), K(44.1%), G(0.6%) | R-K(0.5%), R-G(0.1%) |
| 426 | M(91.9%), L(7.5%), I(0.5%) | M(91.7%), L(7.5%), I(0.8%) | human-human | M(89.8%), L(10.2%) | M-L(0.6%) |
| human-swine | M(80.3%), L(19.7%) | NA |
| swine-human | M(94.7%), I(5.3%) | M-I(5.3%) |
| swine-swine | M(95%), L(4.5%), I(0.5%) | M-L(0.9%), M-I(0.5%) |
| 446 | R(89.2%), K(10.2%), X(0.5%) | R(88.5%), K(11.5%) | human-human | R(91.2%), K(8.6%), X(0.3%) | R-K(0.6%), K-R(0.3%), K-X(0.3%) |
| human-swine | R(93.9%), K(6.1%) | R-K(1.5%) |
| swine-human | R(78.9%), K(21.1%) | R-K(5.3%) |
| swine-swine | R(88.9%), K(11.1%) | R-K(1.5%), K-R(0.1%) |
| N1 | 45 | Q(51.7%), H(38.5%), Y(5.6%), K(3.5%), N(0.7%) | Q(69.7%), H(23.1%), Y(3.5%), K(1.8%), N(0.7%), R(0.7%), L(0.3%), F(0.2%), P(0.2%) | human-human | Q(54.2%), H(37%), Y(4.6%), K(3.8%), N(0.4%) | H-N(0.4%), Q-H(0.4%), Q-K(0.4%) |
| human-swine | Q(53.3%), H(38.3%), K(3.3%), Y(3.3%), N(1.7%) | H-N(1.7%), H-Y(1.7%), Q-H(1.7%) |
| swine-human | Q(47.4%), H(44.7%), Y(5.3%), K(2.6%) | H-Y(5.3%), Q-K(2.6%) |
| swine-swine | Q(71.7%), H(22.7%), Y(3.1%), K(1.2%), N(0.5%), R(0.4%), L(0.2%), F(0.1%), P(0.1%) | Q-H(0.6%), Q-K(0.5%), H-Y(0.3%), Q-R(0.3%), H-Q(0.2%), Q-L(0.2%), H-N(0.1%), H-P(0.1%), H-R(0.1%), Q-Y(0.1%), Y-F(0.1%) |
| 72 | T(82.5%), I(11.2%), N(5.6%), X(0.7%) | T(49.4%), N(34.2%), I(12.8%), S(1.7%), A(1.2%), V(0.3%), Y(0.3%), K(0.2%) | human-human | T(86.6%), I(11.3%), N(1.7%), X(0.4%) | T-I(0.8%), T-X(0.4%) |
| human-swine | T(81.7%), I(16.7%), A(1.7%) | T-I(3.3%), T-A(1.7%) |
| swine-human | T(73.7%), I(13.2%), N(13.2%) | NA |
| swine-swine | T(47.5%), N(38.3%), I(10.5%), S(1.8%), A(1.1%), V(0.3%), Y(0.3%), K(0.1%) | T-I(1.7%), N-S(0.3%), S-N(0.3%), T-N(0.3%), A-T(0.1%), N-I(0.1%), N-K(0.1%), N-Y(0.1%), T-V(0.1%) |
| 77 | G(58.7%), E(22.4%), R(8.4%), I(7%), V(2.8%), K(0.7%) | E(54.9%), G(25.4%), I(6.1%), V(5.8%), K(3.5%), R(3.3%), T(0.3%), A(0.2%), D(0.2%), | human-human | G(65.5%), R(13%), E(12.2%), I(8.4%), K(0.4%), V(0.4%) | G-E(0.8%), G-R(0.4%), R-K(0.4%) |
| human-swine | G(61.7%), I(15%), R(13.3%), E(6.7%), K(1.7%), V(1.7%) | E-K(1.7%), G-E(1.7%), G-R(1.7%) |
| swine-human | E(42.1%), G(39.5%), V(10.5%), I(7.9%) | NA |
| swine-swine | E(62.1%), G(21.7%), V(6.8%), I(5%), K(2.3%), R(1.5%), T(0.2%), A(0.1%), D(0.1%), M(0.1%), Q(0.1%) | E-K(1.3%), E-G(1.1%), G-E(1.1%), G-R(0.5%), G-K(0.3%), E-R(0.2%), E-D(0.1%), E-T(0.1%), G-V(0.1%), I-T(0.1%), K-Q(0.1%), V-A(0.1%), V-I(0.1%), V-M(0.1%) |
| 79 | D(33.6%), S(33.6%), A(12.6%), G(9.8%), V(4.2%), E(2.1%), P(2.1%) | A(27.2%), T(23.4%), S(16.3%), D(15.9%), G(8.1%), V(3.6%), E(2.8%), I(0.5%), N(0.5% | human-human | S(46.6%), D(29.4%), G(11.3%), A(7.1%), V(2.5%), P(1.3%), E(0.8%), T(0.8%) | S-P(0.4%) |
| human-swine | S(51.7%), D(30%), G(11.7%), A(6.7%) | NA |
| swine-human | D(44.7%), A(23.7%), V(7.9%), E(5.3%), G(5.3%), S(5.3%), T(5.3%), P(2.6%) | S-P(2.6%) |
| swine-swine | A(32%), T(25.2%), D(15.8%), S(10.5%), G(8.2%), V(3.8%), E(2.6%), N(0.4%), P(0.4%), I(0.3%), R(0.3%), K(0.2%), L(0.1%), M(0.1%), Y(0.1%) | A-T(2%), T-A(0.5%), A-E(0.4%), A-V(0.4%), G-S(0.4%), D-G(0.3%), G-D(0.3%), A-S(0.2%), D-E(0.2%), S-P(0.2%), T-I(0.2%), A-K(0.1%), D-A(0.1%), D-N(0.1%), D-Y(0.1%), G-R(0.1%), S-L(0.1%), S-M(0.1%), T-K(0.1%), T-N(0.1%), T-S(0.1%), V-I(0.1%) |
| 210 | G(91.6%), D(5.6%), S(2.1%), N(0.7%) | G(62%), D(31.5%), N(4%), S(2%), Y(0.3%), E(0.2%) | human-human | G(97.5%), D(1.7%), S(0.8%) | NA |
| human-swine | G(100%) | NA |
| swine-human | G(78.9%), D(13.2%), S(5.3%), N(2.6%) | N-D(2.6%) |
| swine-swine | G(57.1%), D(37.3%), N(3.3%), S(2.1%), Y(0.2%), E(0.1%) | D-G(1.1%), D-N(1.1%), G-D(0.4%), D-Y(0.2%), G-S(0.2%), D-E(0.1%), D-S(0.1%), S-G(0.1%), S-N(0.1%) |
| 232 | V(52.4%), A(44.8%), T(2.8%) | A(55.9%), V(40%), T(3.6%), I(0.3%), D(0.2%) | human-human | A(51.3%), V(46.2%), T(2.5%) | NA |
| human-swine | A(50%), V(46.7%), I(1.7%), T(1.7%) | A-V(5%), A-T(1.7%), V-I(1.7%) |
| swine-human | V(63.2%), A(34.2%), T(2.6%) | A-V(5.3%), A-T(2.6%), V-A(2.6%) |
| swine-swine | A(60.1%), V(37%), T(2.8%), D(0.1%), I(0.1%) | A-V(3.2%), A-T(1.1%), V-A(0.6%), A-I(0.1%), V-D(0.1%), V-T(0.1%) |
| 257 | K(65%), R(35%) | K(85.7%), R(14.1%), Q(0.2%) | human-human | K(52.9%), R(47.1%) | NA |
| human-swine | K(61.7%), R(38.3%) | R-K(13.3%) |
| swine-human | K(92.1%), R(7.9%) | NA |
| swine-swine | K(89.7%), R(10.2%), Q(0.1%) | R-K(0.6%), K-Q(0.1%), K-R(0.1%) |
| 262 | K(97.9%), R(2.1%) | K(97%), R(2.8%), M(0.2%) | human-human | K(99.6%), R(0.4%) | NA |
| human-swine | K(96.7%), R(3.3%) | K-R(1.7%) |
| swine-human | K(92.1%), R(7.9%) | K-R(2.6%), R-K(2.6%) |
| swine-swine | K(97.5%), R(2.4%), M(0.1%) | K-R(0.7%), K-M(0.1%) |
| 331 | G(45.5%), K(42.7%), R(11.2%), N(0.7%) | G(35.2%), R(34.8%), K(25.4%), N(3.2%), E(0.7%), M(0.5%), Q(0.2%), V(0.2%) | human-human | K(51.3%), G(40.8%), R(8%) | NA |
| human-swine | G(41.7%), K(41.7%), R(13.3%), E(1.7%), N(1.7%) | K-R(8.3%), K-E(1.7%), K-N(1.7%) |
| swine-human | G(57.9%), K(21.1%), R(18.4%), N(2.6%) | K-R(2.6%), R-G(2.6%) |
| swine-swine | R(40.2%), G(32.8%), K(23.5%), N(2.7%), E(0.4%), M(0.3%), Q(0.1%), V(0.1%) | R-G(2.5%), K-G(0.8%), K-N(0.8%), K-R(0.7%), R-K(0.6%), K-E(0.3%), K-M(0.3%), E-G(0.1%), G-K(0.1%), G-R(0.1%), K-Q(0.1%), N-K(0.1%), R-V(0.1%) |
| 365 | I(55.2%), N(23.1%), T(21%), S(0.7%) | T(54.7%), I(41.6%), N(3%), A(0.5%), P(0.2%) | human-human | I(66.8%), N(19.3%), T(13.9%) | I-T(0.4%), N-T(0.4%) |
| human-swine | I(80%), N(11.7%), T(8.3%) | I-T(1.7%), T-I(1.7%) |
| swine-human | T(36.8%), I(34.2%), N(26.3%), S(2.6%) | T-S(2.6%) |
| swine-swine | T(61.3%), I(35.3%), N(3%), A(0.3%), P(0.1%) | T-I(2.1%), I-T(1.2%), T-A(0.3%), N-T(0.1%), T-P(0.1%) |
| 389 | V(39.2%), I(37.8%), M(18.9%), K(2.8%), T(1.4%) | V(49.6%), I(22.7%), M(17.1%), A(3.5%), L(2.8%), K(1.8%), T(1.7%), E(0.2%), G(0.2%) | human-human | I(48.7%), V(30.3%), M(18.5%), K(2.5%) | I-K(1.3%), M-I(0.4%) |
| human-swine | I(48.3%), M(21.7%), V(21.7%), L(3.3%), K(1.7%), Q(1.7%), T(1.7%) | M-L(3.3%), I-T(1.7%), I-V(1.7%), M-Q(1.7%), M-V(1.7%), V-I(1.7%) |
| swine-human | V(52.6%), M(31.6%), I(10.5%), T(5.3%) | A-T(2.6%), I-M(2.6%), V-I(2.6%), V-T(2.6%) |
| swine-swine | V(58.6%), M(17.6%), I(15.8%), A(3.1%), L(2%), K(1.2%), T(1.2%), E(0.1%), G(0.1%), S(0.1%), X(0.1%) | V-I(2.9%), V-A(1.1%), V-L(0.9%), V-M(0.6%), M-I(0.5%), M-K(0.5%), I-M(0.3%), M-T(0.2%), A-T(0.1%), I-K(0.1%), I-T(0.1%), I-V(0.1%), L-I(0.1%), L-S(0.1%), M-L(0.1%), M-V(0.1%), M-X(0.1%), V-E(0.1%), V-G(0.1%) |
| 416 | D(67.8%), N(30.1%), G(1.4%), K(0.7%) | D(55.4%), N(37.3%), S(4.8%), G(1.3%), K(1%), T(0.2%) | human-human | D(71%), N(28.6%), G(0.4%) | D-N(0.8%), D-G(0.4%) |
| human-swine | D(61.7%), N(36.7%), S(1.7%) | D-N(3.3%), D-S(1.7%), N-D(1.7%) |
| swine-human | D(57.9%), N(36.8%), G(2.6%), K(2.6%) | D-N(5.3%) |
| swine-swine | D(56.5%), N(36.6%), S(4.3%), G(1.5%), K(1%), T(0.1%) | D-N(1.8%), D-S(0.9%), N-D(0.9%), N-S(0.3%), S-N(0.3%), D-G(0.2%), G-D(0.1%), N-K(0.1%), N-T(0.1%), S-K(0.1%) |
| 418 | I(69.9%), M(29.4%), V(0.7%) | I(63.2%), M(36%), T(0.5%), V(0.3%) | human-human | I(82.8%), M(16.8%), V(0.4%) | I-V(0.4%) |
| human-swine | I(93.3%), M(6.7%) | M-I(1.7%) |
| swine-human | M(60.5%), I(39.5%) | NA |
| swine-swine | I(58%), M(41.4%), T(0.4%), V(0.2%) | M-I(1.1%), I-M(0.2%), M-V(0.2%), I-T(0.1%), M-T(0.1%) |
| N2 | 18 | A(52%), S(46.6%), T(1.4%) | A(88.1%), S(6.5%), T(4.9%), G(0.5%) | human-human | A(56.8%), S(43.2%) | A-S(0.3%) |
| human-swine | A(84.2%), S(15.8%) | NA |
| swine-human | A(81.8%), S(9.1%), T(9.1%) | NA |
| swine-swine | A(89.7%), S(5.2%), T(4.8%), G(0.4%) | A-T(0.9%), A-G(0.2%), A-S(0.1%), T-A(0.1%) |
| 26 | I(81.1%), V(12.2%), T(6.1%), S(0.7%) | I(64.8%), V(25.2%), M(5.7%), T(3.7%), A(0.4%), L(0.3%) | human-human | I(83.8%), V(10.1%), T(5.7%), S(0.3%) | I-S(0.3%), I-T(0.3%) |
| human-swine | I(78.9%), V(17.5%), T(3.5%) | V-I(1.8%) |
| swine-human | I(68.2%), V(31.8%) | V-I(4.5%) |
| swine-swine | I(64.2%), V(26.2%), M(6.5%), T(2.7%), A(0.2%), L(0.2%) | I-V(1.3%), V-I(1.2%), I-T(0.6%), I-M(0.2%), V-A(0.2%), I-L(0.2%), M-I(0.1%), M-T(0.1%), M-V(0.1%) |
| 52 | L(76.4%), P(16.9%), F(4.1%), Q(2%), X(0.7%) | L(48.6%), P(29.7%), T(7.5%), F(5.3%), Q(3.3%), S(1.9%), R(1.6%), M(0.7%), I(0.5%), | human-human | L(76.7%), P(18.9%), F(4.1%), X(0.3%) | L-P(1%), L-F(0.3%), L-X(0.3%), P-L(0.3%) |
| human-swine | L(61.4%), P(28.1%), F(7%), I(1.8%), S(1.8%) | L-P(3.5%), F-S(1.8%), L-I(1.8%) |
| swine-human | L(68.2%), P(13.6%), Q(13.6%), F(4.5%) | L-Q(4.5%), S-L(4.5%) |
| swine-swine | L(48.1%), P(31%), T(8.2%), F(4.9%), Q(3%), R(1.7%), S(1.6%), M(0.5%), I(0.2%), K(0.2%), X(0.2%), A(0.1%), V(0.1%), W(0.1%) | L-P(0.5%), P-S(0.5%), L-R(0.4%), P-T(0.4%), L-M(0.3%), P-Q(0.2%), L-F(0.2%), L-I(0.2%), L-Q(0.2%), R-Q(0.2%), F-I(0.1%), L-S(0.1%), L-V(0.1%), P-L(0.1%), P-X(0.1%), R-W(0.1%), T-A(0.1%), T-K(0.1%) |
| 56 | T(83.1%), I(16.2%), X(0.7%) | T(58.9%), I(33.6%), K(2.3%), M(2.2%), L(2%), V(0.5%), A(0.3%), X(0.1%) | human-human | T(83.1%), I(16.6%), X(0.3%) | I-T(0.7%), T-I(0.3%), T-X(0.3%) |
| human-swine | T(66.7%), I(28.1%), K(5.3%) | T-K(5.3%), T-I(3.5%) |
| swine-human | T(72.7%), I(27.3%) | T-I(4.5%) |
| swine-swine | T(58.2%), I(36.1%), L(2%), M(1.8%), K(1.2%), V(0.3%), A(0.2%), X(0.1%) | I-M(0.7%), T-I(0.7%), T-K(0.7%), I-T(0.4%), I-V(0.3%), I-K(0.2%), T-A(0.2%), I-L(0.1%), I-X(0.1%), T-M(0.1%) |
| 86 | N(94.6%), I(3.4%), D(1.4%), K(0.7%) | N(80.5%), S(11.2%), D(5.7%), K(0.8%), T(0.8%), H(0.3%), I(0.3%), R(0.3%), E(0.1%) | human-human | N(96.3%), I(2.7%), D(0.7%), K(0.3%) | N-K(0.3%) |
| human-swine | N(98.2%), S(1.8%) | N-S(1.8%) |
| swine-human | N(90.9%), D(4.5%), I(4.5%) | N-I(4.5%) |
| swine-swine | N(83.1%), S(10.1%), D(5.2%), K(0.5%), T(0.5%), H(0.2%), I(0.2%), R(0.2%), E(0.1%) | N-S(2%), N-D(1.5%), N-T(0.5%), S-N(0.4%), N-K(0.3%), N-H(0.2%), N-I(0.2%), D-E(0.1%), D-N(0.1%), K-R(0.1%), S-R(0.1%) |
| 88 | S(98.6%), T(1.4%) | S(83.1%), A(14.8%), L(1.4%), E(0.3%), T(0.3%), K(0.1%), V(0.1%) | human-human | S(99.3%), T(0.7%) | NA |
| human-swine | S(98.2%), L(1.8%) | S-L(1.8%) |
| swine-human | S(95.5%), T(4.5%) | A-T(4.5%) |
| swine-swine | S(82.2%), A(16.4%), L(0.9%), E(0.2%), T(0.2%), K(0.1%), V(0.1%) | S-L(0.4%), S-A(0.2%), A-E(0.2%), A-T(0.2%), A-K(0.1%), A-V(0.1%), L-S(0.1%) |
| 150 | H(62.2%), R(37.8%) | H(96.6%), R(2.7%), N(0.4%), X(0.1%), Y(0.1%) | human-human | H(64.9%), R(35.1%) | H-R(0.7%), R-H(0.3%) |
| human-swine | H(89.5%), R(10.5%) | NA |
| swine-human | H(95.5%), R(4.5%) | NA |
| swine-swine | H(97.6%), R(2%), N(0.2%), X(0.1%), Y(0.1%) | H-N(0.2%), H-R(0.2%), R-H(0.2%), H-X(0.1%), H-Y(0.1%) |
| 258 | E(85.1%), K(9.5%), V(4.1%), M(0.7%), R(0.7%) | E(78.9%), K(13.6%), V(6.4%), R(0.7%), N(0.3%), Q(0.3%) | human-human | E(92.6%), K(5.4%), V(2%) | E-K(0.3%) |
| human-swine | E(89.5%), K(5.3%), V(5.3%) | E-K(3.5%), E-V(1.8%) |
| swine-human | E(50%), K(22.7%), V(18.2%), M(4.5%), R(4.5%) | E-K(9.1%), K-R(4.5%), V-M(4.5%) |
| swine-swine | E(81%), K(11.6%), V(6.6%), R(0.5%), N(0.2%), Q(0.2%) | E-K(4.1%), E-V(0.2%), E-N(0.2%), E-Q(0.2%), E-R(0.2%), K-R(0.2%), K-E(0.1%), V-E(0.1%) |
| 336 | H(63.5%), N(20.3%), Y(12.8%), R(2%), D(0.7%), P(0.7%) | N(47%), H(27%), Y(20.6%), D(2.7%), R(2.4%), F(0.3%) | human-human | H(66.2%), Y(17.9%), N(15.2%), P(0.3%), R(0.3%) | H-N(0.7%), Y-H(0.7%), H-P(0.3%), H-R(0.3%), N-Y(0.3%) |
| human-swine | H(59.6%), Y(24.6%), N(12.3%), D(1.8%), R(1.8%) | H-N(3.5%), H-R(1.8%), N-D(1.8%) |
| swine-human | H(40.9%), N(36.4%), R(9.1%), Y(9.1%), D(4.5%) | H-N(4.5%) |
| swine-swine | N(49.3%), H(26.2%), Y(20.2%), D(2%), R(2%), F(0.2%) | H-N(1.7%), H-Y(1.4%), N-D(0.7%), H-R(0.5%), Y-N(0.5%), Y-D(0.2%), N-Y(0.1%), Y-F(0.1%), Y-H(0.1%), Y-R(0.1%) |
| 370 | S(56.1%), L(39.9%), F(4.1%) | L(53.5%), S(39.3%), F(3.5%), V(2.2%), A(0.4%), I(0.4%), T(0.3%), P(0.1%), Q(0.1%), | human-human | S(52.4%), L(43.2%), F(4.4%) | L-S(1.4%), S-L(0.7%), L-F(0.3%) |
| human-swine | S(50.9%), L(38.6%), F(8.8%), V(1.8%) | L-S(7%), L-F(5.3%), F-S(1.8%), L-V(1.8%) |
| swine-human | L(50%), S(45.5%), F(4.5%) | L-F(4.5%) |
| swine-swine | L(58%), S(36.7%), F(2.6%), V(1.9%), A(0.2%), I(0.2%), T(0.2%), P(0.1%), Q(0.1%), X(0.1%) | L-S(2.8%), L-F(0.7%), S-L(0.5%), L-V(0.4%), F-L(0.2%), L-I(0.2%), S-A(0.2%), S-T(0.2%), L-Q(0.1%), S-P(0.1%), S-V(0.1%), S-X(0.1%), V-A(0.1%), V-I(0.1%) |
| 399 | D(69.6%), E(20.3%), G(8.8%), K(0.7%), Y(0.7%) | D(58.7%), E(27.5%), G(11.2%), K(1.2%), N(0.5%), V(0.3%), A(0.1%), S(0.1%), X(0.1%) | human-human | D(74.7%), E(16.2%), G(8.8%), Y(0.3%) | D-E(0.7%), D-Y(0.3%) |
| human-swine | D(64.9%), E(22.8%), G(12.3%) | G-D(3.5%), D-E(1.8%) |
| swine-human | E(45.5%), D(36.4%), G(13.6%), K(4.5%) | E-K(4.5%) |
| swine-swine | D(59.6%), E(28.3%), G(10.4%), K(1%), N(0.3%), V(0.2%), A(0.1%), S(0.1%), X(0.1%), Y(0.1%) | D-G(0.8%), D-E(0.5%), G-D(0.5%), E-G(0.5%), E-K(0.4%), D-N(0.3%), E-D(0.2%), D-V(0.2%), D-A(0.1%), D-Y(0.1%), E-X(0.1%), G-S(0.1%) |
| 435 | E(54.7%), R(21.6%), K(15.5%), A(8.1%) | R(42.1%), K(27.5%), E(24.5%), A(4.7%), D(0.4%), G(0.1%), I(0.1%), N(0.1%), Q(0.1%) | human-human | E(59.5%), R(21.3%), K(13.2%), A(6.1%) | E-R(0.7%), E-K(0.3%), K-E(0.3%), R-K(0.3%) |
| human-swine | E(38.6%), K(29.8%), R(28.1%), A(3.5%) | E-K(7%) |
| swine-human | K(36.4%), R(36.4%), A(13.6%), E(13.6%) | NA |
| swine-swine | R(45%), K(26.7%), E(22.7%), A(4.8%), D(0.3%), G(0.1%), I(0.1%), N(0.1%), Q(0.1%), T(0.1%) | R-K(0.8%), K-E(0.3%), K-R(0.3%), E-A(0.2%), A-T(0.1%), E-G(0.1%), K-N(0.1%), K-Q(0.1%), R-I(0.1%) |
| M1 | 30 | D(55.9%), S(29.7%), G(10.3%), N(3.4%), Y(0.7%) | D(41.6%), G(35%), S(22.4%), K(0.3%), N(0.3%), X(0.3%) | human-human | D(59.6%), S(31.3%), G(6.5%), N(2.2%), Y(0.4%) | D-N(1.5%), G-S(0.7%), D-S(0.4%), D-Y(0.4%), S-D(0.4%), S-N(0.4%) |
| human-swine | D(56.4%), S(35.9%), G(5.1%), N(2.6%) | NA |
| swine-human | G(44.4%), D(27.8%), S(27.8%) | G-S(5.6%) |
| swine-swine | D(40.8%), G(40.5%), S(18.3%), K(0.2%), X(0.2%) | G-S(0.8%), D-G(0.4%), D-S(0.2%), S-K(0.2%), S-X(0.2%) |
| 95 | R(62.8%), K(37.2%) | R(64.4%), K(35.6%) | human-human | R(62.2%), K(37.8%) | R-K(1.5%), K-R(0.7%) |
| human-swine | R(53.8%), K(46.2%) | R-K(2.6%) |
| swine-human | R(83.3%), K(16.7%) | NA |
| swine-swine | R(67.7%), K(32.3%) | R-K(2.1%), K-R(0.6%) |
| 96 | A(100%) | A(97.4%), G(2%), S(0.7%) | human-human | A(100%) | NA |
| human-swine | A(100%) | NA |
| swine-human | A(100%) | NA |
| swine-swine | A(97.5%), G(1.9%), S(0.6%) | A-G(0.4%), A-S(0.2%) |
| 115 | V(56.6%), I(42.8%), M(0.7%) | V(87.5%), I(12.5%) | human-human | V(53.8%), I(45.8%), M(0.4%) | V-I(0.7%), I-M(0.4%), I-V(0.4%) |
| human-swine | V(69.2%), I(30.8%) | NA |
| swine-human | V(94.4%), I(5.6%) | NA |
| swine-swine | V(91.6%), I(8.4%) | V-I(0.8%) |
| 137 | T(55.9%), A(44.1%) | T(90.1%), A(9.6%), K(0.3%) | human-human | T(53.8%), A(46.2%) | T-A(0.7%), A-T(0.4%) |
| human-swine | T(69.2%), A(30.8%) | NA |
| swine-human | T(88.9%), A(11.1%) | T-A(5.6%) |
| swine-swine | T(94.7%), A(5.2%), K(0.2%) | T-A(0.2%), T-K(0.2%) |
| 139 | T(99.3%), A(0.7%) | T(93.1%), A(6.9%) | human-human | T(100%) | NA |
| human-swine | T(100%) | NA |
| swine-human | T(94.4%), A(5.6%) | NA |
| swine-swine | T(91.8%), A(8.2%) | A-T(0.4%), T-A(0.2%) |
| 208 | Q(93.8%), K(4.8%), R(1.4%) | Q(99.7%), K(0.3%) | human-human | Q(94.5%), K(4.4%), R(1.1%) | Q-K(1.1%), K-Q(0.4%), Q-R(0.4%) |
| human-swine | Q(100%) | NA |
| swine-human | Q(100%) | NA |
| swine-swine | Q(99.8%), K(0.2%) | Q-K(0.2%) |
| 213 | V(99.3%), I(0.7%) | V(95.4%), I(4.6%) | human-human | V(99.6%), I(0.4%) | NA |
| human-swine | V(100%) | NA |
| swine-human | V(100%) | NA |
| swine-swine | V(95.6%), I(4.4%) | V-I(1.1%) |
| 227 | A(66.9%), T(33.1%) | A(72.6%), T(25.7%), N(1%), S(0.7%) | human-human | A(67.3%), T(32.7%) | A-T(2.2%) |
| human-swine | A(59%), T(35.9%), N(5.1%) | A-T(5.1%), T-N(5.1%) |
| swine-human | A(88.9%), T(11.1%) | NA |
| swine-swine | A(78.1%), T(21.2%), S(0.6%), N(0.2%) | A-T(2.3%), A-N(0.2%), T-S(0.2%) |
| 248 | M(85.5%), I(14.5%) | M(57.8%), I(41.9%), T(0.3%) | human-human | M(92%), I(8%) | NA |
| human-swine | M(97.4%), I(2.6%) | NA |
| swine-human | I(61.1%), M(38.9%) | I-M(5.6%) |
| swine-swine | I(50.2%), M(49.6%), T(0.2%) | I-M(1%), M-I(0.6%), M-T(0.2%) |
| 252 | K(100%) | K(97.7%), R(2.3%) | human-human | K(100%) | NA |
| human-swine | K(97.4%), R(2.6%) | K-R(2.6%) |
| swine-human | K(100%) | NA |
| swine-swine | K(98.5%), R(1.5%) | K-R(0.8%) |
| M2 | 11 | I(60.7%), T(39.3%) | T(61.7%), I(38%), F(0.3%) | human-human | I(62.2%), T(37.8%) | T-I(1.8%), I-T(0.4%) |
| human-swine | I(64.1%), T(33.3%), F(2.6%) | I-F(2.6%), I-T(2.6%) |
| swine-human | T(66.7%), I(33.3%) | T-I(5.6%) |
| swine-swine | T(67.7%), I(32.3%) | T-I(1.9%), I-T(0.8%) |
| 13 | N(69.7%), S(29%), K(1.4%) | N(77.6%), S(19.8%), K(1.3%), R(0.7%), D(0.3%), T(0.3%) | human-human | N(66.9%), S(32.7%), K(0.4%) | S-N(2.2%), N-S(1.1%), N-K(0.4%) |
| human-swine | N(71.8%), S(25.6%), R(2.6%) | S-N(2.6%), S-R(2.6%) |
| swine-human | N(77.8%), S(16.7%), K(5.6%) | NA |
| swine-swine | N(81.1%), S(17.4%), K(1%), D(0.2%), R(0.2%), T(0.2%) | N-S(2.3%), S-N(1.5%), N-K(0.8%), N-D(0.2%), N-T(0.2%), S-R(0.2%) |
| 19 | C(85.5%), Y(14.5%) | C(57.8%), Y(41.3%), S(0.7%), R(0.3%) | human-human | C(92%), Y(8%) | NA |
| human-swine | C(97.4%), Y(2.6%) | NA |
| swine-human | Y(61.1%), C(38.9%) | Y-C(5.6%) |
| swine-swine | Y(49.8%), C(49.6%), S(0.4%), R(0.2%) | Y-C(1%), C-Y(0.6%), Y-S(0.4%), C-R(0.2%) |
| 27 | V(79.3%), A(10.3%), I(6.9%), T(3.4%) | V(53.1%), A(27.7%), I(15.2%), T(3.3%), S(0.7%) | human-human | V(83.3%), I(7.3%), A(6.9%), T(2.5%) | V-I(1.5%), V-A(0.4%), V-T(0.4%) |
| human-swine | V(61.5%), I(20.5%), A(17.9%) | I-V(2.6%), V-A(2.6%) |
| swine-human | V(50%), A(38.9%), I(5.6%), T(5.6%) | V-I(5.6%) |
| swine-swine | V(56.7%), A(26.7%), I(13.5%), T(2.7%), S(0.4%) | V-A(2.1%), V-I(1.1%), I-T(0.8%), A-T(0.4%), A-V(0.4%), I-V(0.4%), A-S(0.2%), I-S(0.2%), V-T(0.2%) |
| 28 | I(49.7%), V(35.9%), A(9%), N(2.1%), T(2.1%), D(0.7%), F(0.7%) | I(44.2%), T(16.5%), A(14.2%), V(11.2%), D(8.3%), N(3.3%), F(0.7%), M(0.7%), E(0.3% | human-human | I(52%), V(37.8%), A(9.1%), T(0.7%), F(0.4%) | I-V(0.7%), V-I(0.7%), I-F(0.4%) |
| human-swine | I(46.2%), V(28.2%), A(23.1%), D(2.6%) | A-D(2.6%) |
| swine-human | I(50%), N(16.7%), A(11.1%), T(11.1%), D(5.6%), V(5.6%) | T-I(5.6%), T-N(5.6%) |
| swine-swine | I(46.6%), T(17.4%), A(13.7%), D(10.1%), V(7.1%), N(3.6%), F(0.6%), M(0.4%), E(0.2%), L(0.2%), Y(0.2%) | I-T(1%), V-I(0.8%), A-T(0.4%), D-V(0.4%), I-M(0.4%), I-V(0.4%), A-I(0.2%), A-V(0.2%), D-E(0.2%), D-I(0.2%), D-N(0.2%), D-Y(0.2%), I-F(0.2%), I-L(0.2%), N-V(0.2%), T-I(0.2%), T-N(0.2%) |
| 43 | L(65.5%), T(25.5%), I(6.2%), F(1.4%), P(0.7%), V(0.7%) | L(78.5%), T(16.2%), A(1.3%), F(1.3%), V(1.3%), I(0.7%), S(0.7%) | human-human | L(62.5%), T(29.5%), I(5.1%), V(1.1%), F(0.7%), P(0.7%), A(0.4%) | L-I(0.7%), P-L(0.4%), T-A(0.4%), T-I(0.4%), T-P(0.4%), V-T(0.4%) |
| human-swine | L(56.4%), T(33.3%), V(5.1%), A(2.6%), I(2.6%) | NA |
| swine-human | L(77.8%), T(11.1%), F(5.6%), V(5.6%) | L-F(5.6%), L-V(5.6%) |
| swine-swine | L(84.5%), T(12.4%), A(0.8%), F(0.8%), V(0.8%), S(0.6%), I(0.2%) | L-F(0.8%), T-A(0.4%), L-I(0.2%), L-T(0.2%), T-S(0.2%) |
| 55 | F(82.8%), L(15.2%), I(2.1%) | F(51.8%), L(45.5%), I(1.7%), S(0.3%), V(0.3%), Y(0.3%) | human-human | F(89.8%), L(9.1%), I(1.1%) | L-F(0.7%), F-I(0.4%), F-L(0.4%) |
| human-swine | F(97.4%), L(2.6%) | NA |
| swine-human | L(55.6%), F(38.9%), I(5.6%) | L-F(5.6%), L-I(5.6%) |
| swine-swine | L(55%), F(43.1%), I(1.3%), S(0.2%), V(0.2%), Y(0.2%) | L-F(1.3%), F-L(1%), L-I(0.6%), F-I(0.4%), F-S(0.2%), F-V(0.2%), F-Y(0.2%) |
| 56 | K(88.3%), R(6.9%), E(4.8%) | K(92.7%), E(5.3%), R(1.7%), N(0.3%) | human-human | K(89.5%), R(5.8%), E(4.7%) | K-E(0.4%), K-R(0.4%) |
| human-swine | K(89.7%), E(7.7%), N(2.6%) | K-E(2.6%), K-N(2.6%) |
| swine-human | K(100%) | NA |
| swine-swine | K(94.3%), E(3.8%), R(1.9%) | K-E(0.6%), K-R(0.6%), E-K(0.2%), R-K(0.2%) |
| 78 | Q(53.8%), K(40%), E(6.2%) | Q(91.7%), K(7.3%), E(1%) | human-human | Q(51.3%), K(42.5%), E(6.2%) | Q-K(0.7%), K-E(0.4%) |
| human-swine | Q(69.2%), K(28.2%), E(2.6%) | NA |
| swine-human | Q(94.4%), K(5.6%) | NA |
| swine-swine | Q(95.8%), K(3.8%), E(0.4%) | K-Q(0.2%), Q-K(0.2%) |
| 86 | V(56.6%), A(42.1%), T(1.4%) | V(90.8%), A(8.9%), S(0.3%) | human-human | V(54.2%), A(44.7%), T(1.1%) | V-A(0.7%), A-T(0.4%), A-V(0.4%) |
| human-swine | V(71.8%), A(28.2%) | NA |
| swine-human | V(94.4%), A(5.6%) | NA |
| swine-swine | V(95.4%), A(4.4%), S(0.2%) | V-A(0.4%), V-S(0.2%) |
| 93 | N(63.4%), S(36.6%) | N(91.4%), S(8.6%) | human-human | N(61.1%), S(38.9%) | N-S(1.5%), S-N(1.5%) |
| human-swine | N(69.2%), S(30.8%) | N-S(2.6%) |
| swine-human | N(94.4%), S(5.6%) | NA |
| swine-swine | N(96%), S(4%) | NA |
| NS1 | 22 | F(61.3%), V(37.1%), L(1.1%), C(0.5%) | F(94.1%), V(4.3%), L(1.1%), I(0.5%) | human-human | F(59.3%), V(39.8%), L(0.9%) | F-V(0.6%), F-L(0.3%) |
| human-swine | F(79.7%), V(20.3%) | NA |
| swine-human | F(85.7%), V(11.4%), C(2.9%) | F-C(2.9%) |
| swine-swine | F(97.1%), V(1.8%), L(0.6%), I(0.4%) | F-L(0.6%), F-V(0.4%), F-I(0.1%) |
| 53 | D(71%), N(17.7%), E(11.3%) | D(44.5%), E(44.5%), N(8.8%), G(1.1%), K(0.5%), A(0.4%), Y(0.4%) | human-human | D(78.6%), N(17.1%), E(4.3%) | D-N(0.9%), D-E(0.3%), N-D(0.3%) |
| human-swine | D(89.8%), N(10.2%) | D-N(5.1%) |
| swine-human | D(54.3%), E(34.3%), N(11.4%) | D-N(2.9%), N-D(2.9%) |
| swine-swine | E(52.8%), D(37.8%), N(7.8%), G(0.8%), K(0.3%), A(0.2%), Y(0.2%) | D-N(1.5%), E-D(0.4%), E-G(0.4%), D-E(0.3%), E-K(0.3%), D-Y(0.2%), D-A(0.1%), E-A(0.1%), N-D(0.1%) |
| 70 | K(84.9%), E(10.2%), R(3.2%), G(1.1%), T(0.5%) | K(48.2%), E(45.2%), G(3.2%), R(3%), N(0.4%) | human-human | K(92.2%), E(4.3%), R(3.1%), T(0.3%) | K-E(0.3%), K-T(0.3%) |
| human-swine | K(91.5%), R(8.5%) | NA |
| swine-human | K(57.1%), E(28.6%), R(8.6%), G(5.7%) | E-G(2.9%) |
| swine-swine | E(54.8%), K(40.7%), G(2.4%), R(1.9%), N(0.2%) | E-G(1.3%), K-R(0.6%), E-K(0.5%), K-E(0.2%), E-N(0.1%), G-R(0.1%), K-G(0.1%), K-N(0.1%) |
| 73 | S(89.2%), Y(8.6%), H(2.2%) | S(51.6%), Y(33.4%), H(10.7%), C(2.1%), F(1.1%), P(0.5%), N(0.2%), Q(0.2%), R(0.2%) | human-human | S(96%), Y(3.4%), H(0.6%) | NA |
| human-swine | S(96.6%), F(1.7%), P(1.7%) | S-F(1.7%), S-P(1.7%) |
| swine-human | S(65.7%), Y(25.7%), H(8.6%) | NA |
| swine-swine | S(44.4%), Y(41%), H(11.4%), C(1.9%), F(0.7%), P(0.2%), N(0.1%), Q(0.1%), R(0.1%) | Y-H(1.2%), Y-C(0.6%), S-P(0.2%), Y-S(0.2%), S-F(0.1%), S-Y(0.1%), Y-N(0.1%), Y-Q(0.1%), Y-R(0.1%) |
| 79 | M(94.1%), I(3.2%), L(1.6%), T(1.1%) | M(59.3%), I(33.6%), L(4.8%), T(1.2%), V(0.7%), K(0.2%), R(0.2%) | human-human | M(98.4%), I(0.6%), L(0.6%), T(0.3%) | M-T(0.3%) |
| human-swine | M(94.9%), I(1.7%), R(1.7%), T(1.7%) | M-I(1.7%), M-R(1.7%), M-T(1.7%) |
| swine-human | M(77.1%), I(14.3%), L(5.7%), T(2.9%) | I-T(2.9%) |
| swine-swine | M(52.5%), I(41.2%), L(5.1%), T(0.6%), V(0.4%), K(0.1%) | I-M(1.4%), I-T(0.6%), I-L(0.2%), I-V(0.2%), M-I(0.2%), M-V(0.2%), L-I(0.1%), M-K(0.1%), M-L(0.1%) |
| 82 | A(87.6%), V(12.4%) | A(98.2%), V(1.8%) | human-human | A(86.6%), V(13.4%) | A-V(0.6%), V-A(0.6%) |
| human-swine | A(93.2%), V(6.8%) | NA |
| swine-human | A(94.3%), V(5.7%) | NA |
| swine-swine | A(99.2%), V(0.8%) | A-V(0.1%) |
| 124 | M(83.3%), I(7.5%), L(5.9%), T(3.2%) | M(79.6%), I(11.8%), L(5.2%), T(1.6%), V(1.2%), A(0.2%), R(0.2%), S(0.2%) | human-human | M(87.9%), I(5.6%), L(3.7%), T(2.8%) | M-I(0.9%), M-T(0.6%), I-T(0.3%), M-L(0.3%) |
| human-swine | M(89.8%), I(6.8%), L(1.7%), T(1.7%) | M-I(5.1%), M-T(1.7%) |
| swine-human | M(74.3%), I(14.3%), L(11.4%) | NA |
| swine-swine | M(81%), I(11.4%), L(4.9%), T(1.4%), V(1%), A(0.1%), R(0.1%), S(0.1%) | M-I(0.5%), M-V(0.5%), I-T(0.2%), M-T(0.2%), I-S(0.1%), M-R(0.1%), T-A(0.1%) |
| 125 | E(64%), D(31.2%), G(2.7%), N(2.2%) | E(51.2%), D(41.6%), N(5.5%), G(1.2%), A(0.2%), V(0.2%) | human-human | E(68.9%), D(28.9%), G(2.2%) | E-D(0.9%), D-E(0.6%), E-G(0.6%) |
| human-swine | E(91.5%), D(8.5%) | E-D(1.7%) |
| swine-human | E(62.9%), D(25.7%), N(11.4%) | D-N(2.9%) |
| swine-swine | D(50.2%), E(43.6%), N(5.2%), G(0.7%), A(0.1%), V(0.1%) | D-N(1.9%), D-E(0.5%), D-G(0.5%), E-G(0.2%), D-A(0.1%), D-V(0.1%), E-D(0.1%), N-D(0.1%) |
| 129 | I(43%), V(24.7%), M(21.5%), T(10.8%) | T(46.2%), I(40.7%), V(8.6%), M(3.8%), A(0.4%), L(0.2%), R(0.2%) | human-human | I(41.6%), V(30.1%), M(23.9%), T(4.3%) | I-M(0.3%), M-I(0.3%), M-T(0.3%), M-V(0.3%), V-I(0.3%), V-M(0.3%) |
| human-swine | I(45.8%), V(35.6%), M(16.9%), T(1.7%) | I-T(1.7%), V-I(1.7%) |
| swine-human | I(57.1%), T(31.4%), M(8.6%), V(2.9%) | I-M(2.9%) |
| swine-swine | T(54.2%), I(38.9%), V(4.8%), M(1.7%), A(0.2%), L(0.1%), R(0.1%) | T-I(1.1%), I-T(0.8%), I-M(0.2%), I-V(0.2%), T-A(0.2%), V-I(0.2%), I-L(0.1%), T-R(0.1%) |
| 171 | N(28%), Y(25.3%), D(21%), I(20.4%), A(2.7%), G(1.1%), E(0.5%), | D(51.4%), N(30.4%), Y(8.6%), I(3.2%), G(2.5%), H(1.2%), E(1.1%), C(0.7%), K(0.4%), | human-human | Y(31.4%), I(23.3%), N(22.7%), D(18.6%), A(2.8%), H(0.6%), F(0.3%), G(0.3%) | I-Y(0.6%), D-A(0.3%), D-G(0.3%), D-N(0.3%), I-F(0.3%), Y-H(0.3%), Y-I(0.3%) |
| human-swine | Y(33.9%), N(25.4%), I(16.9%), D(11.9%), H(6.8%), A(1.7%), C(1.7%), E(1.7%) | Y-H(5.1%), D-E(1.7%), Y-C(1.7%) |
| swine-human | N(51.4%), D(34.3%), I(5.7%), E(2.9%), G(2.9%), Y(2.9%) | D-N(2.9%) |
| swine-swine | D(62.1%), N(27.6%), Y(4.8%), G(2%), I(1.2%), E(1%), C(0.5%), H(0.3%), K(0.3%), T(0.2%) | D-N(1.9%), D-G(1%), D-Y(0.3%), Y-H(0.3%), D-E(0.2%), N-T(0.2%), N-G(0.1%), N-I(0.1%), N-K(0.1%), Y-C(0.1%) |
| 180 | V(87.6%), I(11.8%), F(0.5%) | V(54.6%), I(42%), T(1.6%), A(0.7%), F(0.7%), L(0.4%) | human-human | V(93.5%), I(6.2%), F(0.3%) | V-I(0.6%), V-F(0.3%) |
| human-swine | V(96.6%), I(3.4%) | V-I(3.4%) |
| swine-human | V(68.6%), I(31.4%) | NA |
| swine-swine | V(50.4%), I(47.1%), T(1.2%), A(0.5%), F(0.5%), L(0.2%) | V-I(2.3%), I-T(0.7%), I-V(0.5%), V-A(0.3%), I-F(0.2%), I-L(0.1%), V-F(0.1%), V-L(0.1%) |
| 183 | G(89.2%), K(10.8%) | G(52.7%), K(45.9%), R(0.9%), E(0.4%), N(0.2%) | human-human | G(96%), K(4%) | NA |
| human-swine | G(100%) | NA |
| swine-human | G(65.7%), K(34.3%) | NA |
| swine-swine | K(53.8%), G(45%), R(0.8%), E(0.2%), N(0.1%) | G-R(0.3%), K-E(0.2%), K-G(0.1%), K-N(0.1%), K-R(0.1%), R-K(0.1%) |
| 198 | L(73.7%), I(26.3%) | L(89.5%), I(10.2%), V(0.4%) | human-human | L(67.4%), I(32.6%) | L-I(1.2%), I-L(0.3%) |
| human-swine | L(55.9%), I(44.1%) | L-I(3.4%), I-L(1.7%) |
| swine-human | L(100%) | NA |
| swine-swine | L(95.1%), I(4.7%), V(0.2%) | L-I(0.7%), I-L(0.2%), L-V(0.2%) |
| 206 | S(36.6%), C(26.3%), R(23.7%), I(5.4%), T(5.4%), H(2.2%), L(0.5%) | R(32.1%), T(25.7%), I(19.3%), C(11.8%), S(6.2%), H(1.8%), A(1.1%), L(0.7%), X(0.5% | human-human | S(39.4%), C(32.3%), R(21.7%), I(2.8%), H(2.2%), T(1.2%), L(0.3%) | S-C(0.9%), C-S(0.3%), R-H(0.3%), R-L(0.3%) |
| human-swine | C(42.4%), R(35.6%), S(20.3%), N(1.7%) | C-S(3.4%), R-C(3.4%), C-R(1.7%), S-C(1.7%), S-N(1.7%) |
| swine-human | R(45.7%), T(20%), I(14.3%), S(14.3%), C(2.9%), H(2.9%) | R-S(2.9%) |
| swine-swine | R(32.1%), T(30.9%), I(22.8%), C(6.5%), S(3.8%), H(1.7%), A(0.8%), L(0.7%), X(0.3%), K(0.1%), P(0.1%), Y(0.1%) | T-I(1.4%), R-C(1.1%), I-T(0.5%), R-H(0.4%), R-S(0.4%), T-A(0.4%), R-L(0.3%), I-S(0.2%), T-S(0.2%), T-X(0.2%), C-S(0.1%), H-Y(0.1%), I-K(0.1%), I-X(0.1%), L-I(0.1%), S-I(0.1%), T-P(0.1%) |
| 227 | X(57%), R(34.4%), G(7.5%), E(0.5%), K(0.5%) | X(58.2%), G(29.3%), R(12.1%), E(0.4%) | human-human | X(58.1%), R(37.6%), G(3.7%), K(0.6%) | R-X(0.9%), R-G(0.3%), R-K(0.3%) |
| human-swine | X(79.7%), R(18.6%), G(1.7%) | R-G(1.7%) |
| swine-human | X(65.7%), G(17.1%), R(14.3%), E(2.9%) | G-R(2.9%), R-E(2.9%), R-X(2.9%) |
| swine-swine | X(52.6%), G(35.1%), R(11.4%), E(0.8%) | G-R(0.8%), G-X(0.6%), R-X(0.6%), X-G(0.2%), E-G(0.1%), E-X(0.1%), R-G(0.1%) |
| NEP | 14 | M(73.1%), L(23.7%), T(1.6%), V(1.1%), K(0.5%) | M(88%), L(3.8%), V(3.2%), T(2.3%), K(1.4%), I(1.2%) | human-human | M(71.1%), L(26.4%), T(2.2%), V(0.3%) | L-M(0.6%), M-L(0.6%), M-T(0.3%), M-V(0.3%) |
| human-swine | M(71.2%), L(18.6%), T(6.8%), K(1.7%), V(1.7%) | M-K(1.7%), M-V(1.7%), T-M(1.7%) |
| swine-human | M(85.7%), L(5.7%), K(2.9%), T(2.9%), V(2.9%) | NA |
| swine-swine | M(92.1%), V(2.5%), T(1.8%), L(1.4%), K(1.3%), I(1%) | M-V(1.2%), M-I(0.4%), M-K(0.3%), M-L(0.3%), M-T(0.2%), T-M(0.1%) |
| 26 | E(80.6%), K(10.8%), G(8.6%) | E(52%), K(45.5%), G(1.6%), R(0.7%), T(0.2%) | human-human | E(88.5%), G(7.5%), K(4%) | E-G(0.6%), G-E(0.3%) |
| human-swine | E(94.9%), G(5.1%) | E-G(3.4%) |
| swine-human | E(57.1%), K(34.3%), G(8.6%) | E-G(2.9%) |
| swine-swine | K(53.6%), E(45%), G(0.8%), R(0.4%), T(0.1%) | E-G(0.6%), K-R(0.4%), K-E(0.2%), E-K(0.1%), K-T(0.1%) |
| 37 | S(82.8%), A(17.2%) | S(77.5%), A(22.5%) | human-human | S(86.3%), A(13.7%) | NA |
| human-swine | S(76.3%), A(23.7%) | NA |
| swine-human | S(62.9%), A(37.1%) | NA |
| swine-swine | S(79.3%), A(20.7%) | A-S(0.2%), S-A(0.1%) |
| 40 | I(67.7%), L(31.2%), V(1.1%) | L(49.3%), I(46.1%), V(4.6%) | human-human | I(72.4%), L(26.4%), V(1.2%) | L-I(0.3%), V-I(0.3%) |
| human-swine | I(91.5%), L(8.5%) | NA |
| swine-human | I(57.1%), L(40%), V(2.9%) | NA |
| swine-swine | L(57.1%), I(37.7%), V(5.2%) | L-I(0.6%), I-V(0.2%), I-L(0.1%), V-I(0.1%), V-L(0.1%) |
| 48 | A(57.5%), T(40.3%), S(1.6%), N(0.5%) | A(58.8%), T(35%), S(2.7%), N(2%), V(0.7%), X(0.4%), E(0.2%), P(0.2%), Y(0.2%) | human-human | A(54%), T(43.8%), S(1.9%), N(0.3%) | A-T(0.6%), T-A(0.3%), T-N(0.3%) |
| human-swine | T(67.8%), A(30.5%), S(1.7%) | A-S(1.7%), T-A(1.7%) |
| swine-human | A(57.1%), T(40%), S(2.9%) | A-T(2.9%), N-S(2.9%) |
| swine-swine | A(66.2%), T(28.9%), S(2.1%), N(1.8%), V(0.4%), X(0.2%), E(0.1%), P(0.1%), Y(0.1%) | T-A(1%), A-T(0.8%), A-S(0.4%), A-V(0.4%), T-N(0.4%), A-X(0.2%), A-E(0.1%), S-Y(0.1%), T-P(0.1%), T-S(0.1%) |
| 49 | V(86.6%), L(11.3%), I(2.2%) | V(49.1%), L(47.9%), I(2.1%), A(0.5%), K(0.2%), X(0.2%) | human-human | V(93.5%), L(4.3%), I(2.2%) | V-I(0.3%), V-L(0.3%) |
| human-swine | V(98.3%), I(1.7%) | V-I(1.7%) |
| swine-human | V(62.9%), L(34.3%), I(2.9%) | NA |
| swine-swine | L(56%), V(41.5%), I(1.8%), A(0.4%), K(0.1%), X(0.1%) | V-I(0.4%), V-L(0.4%), L-V(0.2%), V-A(0.2%), L-K(0.1%), L-X(0.1%) |
| 52 | M(83.3%), T(12.4%), L(4.3%) | T(48.8%), M(47.9%), K(1.4%), V(0.9%), L(0.4%), A(0.2%), I(0.2%), N(0.2%), R(0.2%) | human-human | M(89.8%), T(5.9%), L(4.3%) | M-L(0.6%), L-M(0.3%) |
| human-swine | M(93.2%), L(1.7%), R(1.7%), T(1.7%), V(1.7%) | M-R(1.7%), M-T(1.7%), M-V(1.7%) |
| swine-human | M(62.9%), T(37.1%) | NA |
| swine-swine | T(57.7%), M(40.4%), K(1%), V(0.5%), A(0.1%), I(0.1%), L(0.1%), N(0.1%) | T-M(1%), T-K(0.7%), M-T(0.4%), M-V(0.3%), M-I(0.1%), M-L(0.1%), T-A(0.1%), T-N(0.1%) |
| 57 | Y(55.4%), S(26.9%), L(17.2%), F(0.5%) | Y(55.2%), S(33.8%), F(5.4%), L(3.2%), H(1.8%), T(0.5%), A(0.2%) | human-human | Y(57.5%), S(23.3%), L(19.3%) | L-Y(0.3%), S-L(0.3%) |
| human-swine | Y(78%), L(16.9%), S(3.4%), H(1.7%) | Y-H(1.7%) |
| swine-human | Y(62.9%), S(28.6%), L(5.7%), F(2.9%) | NA |
| swine-swine | Y(50.5%), S(40.7%), F(5.5%), H(1.5%), L(1.2%), T(0.5%), A(0.1%) | S-F(1.1%), Y-H(0.5%), F-S(0.3%), S-Y(0.3%), F-L(0.1%), S-A(0.1%), S-T(0.1%), Y-S(0.1%) |
| 60 | N(50.5%), S(40.3%), H(7%), D(1.6%), T(0.5%) | N(57.7%), S(35.9%), D(4.8%), T(0.5%), H(0.4%), R(0.4%), C(0.2%), I(0.2%) | human-human | N(46.9%), S(45.3%), H(7.1%), D(0.6%) | N-S(0.6%) |
| human-swine | S(55.9%), N(39%), C(1.7%), H(1.7%), R(1.7%) | S-N(3.4%), S-C(1.7%), S-R(1.7%) |
| swine-human | N(57.1%), S(31.4%), D(5.7%), H(2.9%), T(2.9%) | N-H(2.9%), N-S(2.9%), N-T(2.9%), S-N(2.9%) |
| swine-swine | N(58.6%), S(35%), D(5.7%), T(0.4%), H(0.1%), I(0.1%), R(0.1%) | S-N(2.1%), N-S(1.2%), D-N(0.5%), N-D(0.2%), N-T(0.2%), D-S(0.1%), N-H(0.1%), S-I(0.1%), S-R(0.1%) |
| 89 | A(36%), T(32.8%), I(17.2%), M(8.1%), L(2.2%), V(2.2%), E(1.1%), | I(37.3%), A(23.8%), T(12.3%), L(9.5%), M(9.3%), V(6.2%), E(0.9%), K(0.4%), S(0.4%) | human-human | A(42.5%), T(33.2%), I(12.4%), M(8.7%), E(1.2%), V(0.9%), L(0.6%), S(0.3%) | T-A(0.9%), A-V(0.6%), A-E(0.3%), A-T(0.3%), I-M(0.3%), M-S(0.3%), T-I(0.3%) |
| human-swine | A(45.8%), T(27.1%), M(13.6%), V(6.8%), E(3.4%), I(1.7%), S(1.7%) | A-T(6.8%), A-V(5.1%), A-E(1.7%), A-M(1.7%), A-S(1.7%), M-A(1.7%) |
| swine-human | I(28.6%), T(25.7%), A(20%), M(11.4%), L(8.6%), V(5.7%) | A-T(2.9%), I-T(2.9%) |
| swine-swine | I(45.1%), A(20.7%), L(10.8%), M(9.5%), T(8.9%), V(4.3%), E(0.3%), K(0.2%), S(0.1%) | I-T(1.1%), A-V(1%), M-I(0.5%), A-T(0.4%), I-M(0.4%), A-E(0.3%), I-L(0.3%), I-V(0.3%), T-M(0.3%), L-I(0.2%), M-T(0.2%), M-V(0.2%), T-K(0.2%), A-M(0.1%), L-S(0.1%), T-I(0.1%) |
| 120 | L(94.1%), F(5.9%) | L(64.1%), F(35.7%), I(0.2%) | human-human | L(98.4%), F(1.6%) | L-F(0.3%) |
| human-swine | L(96.6%), F(3.4%) | L-F(3.4%) |
| swine-human | L(80%), F(20%) | F-L(2.9%) |
| swine-swine | L(58.9%), F(41%), I(0.1%) | F-L(0.8%), L-F(0.4%), F-I(0.1%) |