|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Segment (Protein)** | **AUC** | | | | **Average percentage predicted vs true classes** |
| **Human-human** | **Swine-swine** | **Human-swine** | **Swine-human** |
| **PB2** | 0.96 | 0.94 | 0.80 | 0.55 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **90.2** | 2.0 | 5.6 | 2.1 | | sw-sw | | 5.4 | **89.4** | 3.0 | 2.1 | | hu-sw | | 55.7 | 32.9 | **10.7** | 0.7 | | sw-hu | | 26.2 | 67.5 | 2.5 | **3.8** | |
| **PB1** | 0.96 | 0.95 | 0.81 | 0.68 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **87.2** | 2.0 | 7.0 | 3.8 | | sw-sw | | 3.6 | **90.4** | 3.1 | 2.9 | | hu-sw | | 46.7 | 23.9 | **26.1** | 3.3 | | sw-hu | | 23.3 | 68.3 | 1.7 | **6.7** | |
| **PB1 (PB1-F2)** | 0.91 | 0.90 | 0.79 | 0.63 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **78.6** | 5.0 | 10.1 | 6.3 | | sw-sw | | 11.8 | **74.7** | 5.3 | 8.2 | | hu-sw | | 54.4 | 15.0 | **24.4** | 6.1 | | sw-hu | | 31.7 | 43.3 | 8.3 | **16.7** | |
| **PA** | 0.97 | 0.96 | 0.80 | 0.61 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **91.7** | 2.4 | 4.5 | 1.4 | | sw-sw | | 3.5 | **91.9** | 2.6 | 2.0 | | hu-sw | | 47.2 | 28.3 | **20.6** | 3.9 | | sw-hu | | 28.3 | 63.3 | 8.3 | **0.0** | |
| **PA**  **(PA-X)** | 0.94 | 0.93 | 0.78 | 0.55 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **81.6** | 5.7 | 5.9 | 6.8 | | sw-sw | | 3.9 | **84.2** | 2.8 | 9.0 | | hu-sw | | 45.0 | 23.9 | **27.2** | 3.9 | | sw-hu | | 15.0 | 76.7 | 8.3 | **0.0** | |
| **HA**  **(H1)** | 0.98 | 0.97 | 0.89 | 0.62 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **89.2** | 1.4 | 5.0 | 4.4 | | sw-sw | | 1.1 | **96.1** | 1.6 | 1.2 | | hu-sw | | 37.7 | 20.0 | **42.3** | 0.0 | | sw-hu | | 37.5 | 58.8 | 3.8 | **0.0** | |
| **HA**  **(H3)** | 0.98 | 0.95 | 0.64 | 0.46 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **87.4** | 2.9 | 7.4 | 2.4 | | sw-sw | | 1.3 | **90.1** | 3.9 | 4.6 | | hu-sw | | 38.8 | 51.2 | **6.2** | 3.8 | | sw-hu | | 30.0 | 60.0 | 10.0 | **0.0** | |
| **NP** | 0.96 | 0.95 | 0.73 | 0.56 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **83.9** | 2.9 | 10.4 | 2.8 | | sw-sw | | 3.1 | **82.0** | 4.5 | 10.3 | | hu-sw | | 57.9 | 24.3 | **14.3** | 3.6 | | sw-hu | | 12.5 | 67.5 | 10.0 | **10.0** | |
| **NA**  **(N1)** | 0.97 | 0.94 | 0.84 | 0.61 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **90.6** | 3.3 | 3.8 | 2.3 | | sw-sw | | 1.8 | **93.7** | 1.7 | 2.8 | | hu-sw | | 46.7 | 32.5 | **18.3** | 2.5 | | sw-hu | | 18.8 | 65.0 | 7.5 | **8.8** | |
| **NA**  **(N2)** | 0.98 | 0.97 | 0.79 | 0.54 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **88.8** | 0.5 | 3.2 | 7.5 | | sw-sw | | 1.4 | **94.6** | 2.3 | 1.7 | | hu-sw | | 40.0 | 43.3 | **10.8** | 5.8 | | sw-hu | | 30.0 | 67.5 | 2.5 | **0.80** | |
| **MP**  **(M1)** | 0.88 | 0.85 | 0.66 | 0.53 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **73.6** | 9.8 | 9.8 | 6.8 | | sw-sw | | 9.8 | **53.9** | 6.7 | 29.5 | | hu-sw | | 51.2 | 27.5 | **2.5** | 18.8 | | sw-hu | | 12.5 | 65.0 | 12.5 | **10.0** | |
| **MP**  **(M2)** | 0.91 | 0.91 | 0.69 | 0.39 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **70.9** | 3.9 | 21.1 | 4.1 | | sw-sw | | 7.7 | **76.1** | 5.7 | 10.6 | | hu-sw | | 63.7 | 20.0 | **15.0** | 1.2 | | sw-hu | | 25.0 | 55.0 | 15.0 | **5.0** | |
| **NS (NS1)** | 0.94 | 0.94 | 0.81 | 0.54 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **78.1** | 2.7 | 11.1 | 8.1 | | sw-sw | | 4.1 | **86.2** | 4.0 | 5.7 | | hu-sw | | 58.3 | 22.5 | **14.2** | 5.0 | | sw-hu | | 43.8 | 50.0 | 1.2 | **5.0** | |
| **NS (NEP)** | 0.93 | 0.92 | 0.80 | 0.66 | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | pred | hu-hu | sw-sw | hu-sw | sw-hu | | true | | | hu-hu | | **77.7** | 5.3 | 11.9 | 5.2 | | sw-sw | | 6.6 | **81.3** | 3.5 | 8.6 | | hu-sw | | 52.5 | 17.5 | **25.0** | 5.0 | | sw-hu | | 22.5 | 53.8 | 13.8 | **10.0** | |