Supplementary Materials for

**m5CPred-SVM: A Computational RNA m5C Site Predictor based on Support Vector Machine**

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**Table S1.** The cross validation results of KSNPF for the three species with different Ks.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species | K | best\_ks | best\_bc | Sn | Sp | Pre | Acc | Mcc | F1-score | AUC |
| H. sapiens | 1 | 0.125 | 0.5 | 63.5 | 79.5 | 75.6 | 71.5 | 0.436 | 0.690 | 0.771 |
| 2 | 0.25 | 0.03125 | 67.5 | 77.5 | 75.0 | 72.5 | 0.452 | 0.711 | 0.784 |
| 3 | 1 | 32 | 73.5 | 73.0 | 73.1 | 73.3 | 0.465 | 0.733 | 0.800 |
| 4 | 0.5 | 16 | 73.0 | 75.5 | 74.9 | 74.3 | 0.485 | 0.739 | 0.791 |
| 5 | **0.25** | **4** | **73.5** | **79.5** | **78.2** | **76.5** | **0.531** | **0.758** | **0.802** |
| M. musculus | 1 | **1** | **8** | **65.5** | **64.2** | **64.7** | **64.9** | **0.298** | **0.652** | **0.702** |
| 2 | 0.5 | 8 | 66.5 | 60.9 | 63.0 | 63.7 | 0.275 | 0.647 | 0.691 |
| 3 | 0.5 | 4 | 65.1 | 62.8 | 63.6 | 63.9 | 0.279 | 0.643 | 0.691 |
| 4 | 4 | 2048 | 65.7 | 61.9 | 63.3 | 63.8 | 0.277 | 0.645 | 0.689 |
| 5 | 0.5 | 4 | 65.3 | 61.7 | 63.1 | 63.5 | 0.270 | 0.642 | 0.685 |
| A. thaliana | 1 | **0.25** | **0.125** | **57.7** | **81.0** | **75.2** | **69.4** | **0.398** | **0.653** | **0.753** |
| 2 | 0.5 | 2 | 54.7 | 82.9 | 76.1 | 68.8 | 0.391 | 0.636 | 0.750 |
| 3 | 0.25 | 0.125 | 57.9 | 80.1 | 74.4 | 69.0 | 0.390 | 0.651 | 0.749 |
| 4 | 0.25 | 0.0625 | 55.4 | 81.8 | 75.2 | 68.6 | 0.385 | 0.638 | 0.746 |
| 5 | 0.5 | 16 | 57.6 | 79.8 | 74.1 | 68.7 | 0.384 | 0.648 | 0.743 |

**Table S2.** The cross validation results of KSPSDP for the three species with different Ks.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species | K | best\_ks | best\_bc | Sn% | Sp% | Pre% | Acc% | Mcc | F1-score | AUC |
| H. sapiens | 1 | 0.25 | 1 | 84.0 | 77.0 | 78.5 | 80.5 | 0.612 | 0.812 | 0.859 |
| 2 | 1 | 0.25 | 83.0 | 73.5 | 75.8 | 78.3 | 0.568 | 0.792 | 0.857 |
| 3 | 0.25 | 0.5 | 85.0 | 74.0 | 76.6 | 79.5 | 0.594 | 0.806 | 0.861 |
| 4 | 1 | 0.125 | 80.0 | 73.0 | 74.8 | 76.5 | 0.531 | 0.773 | 0.832 |
| 5 | **0.25** | **8** | **82.5** | **77.5** | **78.6** | **80.0** | **0.601** | **0.805** | **0.862** |
| M. musculus | 1 | **16** | **8192** | **73.0** | **72.6** | **72.7** | **72.8** | **0.456** | **0.728** | **0.803** |
| 2 | 4 | 16384 | 75.8 | 69.5 | 71.3 | 72.6 | 0.453 | 0.735 | 0.798 |
| 3 | 4 | 32768 | 76.0 | 67.8 | 70.3 | 71.9 | 0.440 | 0.730 | 0.792 |
| 4 | 0.5 | 2 | 74.5 | 69.9 | 71.2 | 72.2 | 0.444 | 0.728 | 0.792 |
| 5 | 0.125 | 0.5 | 74.5 | 70.1 | 71.3 | 72.3 | 0.446 | 0.729 | 0.787 |
| A. thaliana | 1 | 0.5 | 128 | 47.6 | 81.0 | 71.4 | 64.3 | 0.303 | 0.571 | 0.692 |
| 2 | 2 | 32768 | 51.9 | 76.6 | 68.9 | 64.3 | 0.294 | 0.592 | 0.685 |
| 3 | **0.0625** | **1** | **58.2** | **72.4** | **67.8** | **65.3** | **0.309** | **0.626** | **0.694** |
| 4 | 0.125 | 0.5 | 45.7 | 81.9 | 71.6 | 63.8 | 0.296 | 0.558 | 0.682 |
| 5 | 0.125 | 1 | 50.4 | 78.0 | 69.7 | 64.2 | 0.296 | 0.585 | 0.690 |