Supplementary Table 2: Gene wise performance metrices

1. Results of SPOT-RNA

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene\_Name** | **TP** | **TN** | **FP** | **FN** | **Length** | **Precision** | **Recall** | **Specificity** | **F1\_Score** | **Accuracy** |
| 1A60 | 22 | 16 | 0 | 6 | 44 | 1.00 | 0.79 | 1.00 | 0.88 | 0.86 |
| 1E\_95 | 24 | 12 | 0 | 0 | 36 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1KPY | 16 | 13 | 4 | 0 | 33 | 0.80 | 1.00 | 0.76 | 0.89 | 0.88 |
| 1KPZ | 16 | 13 | 4 | 0 | 33 | 0.80 | 1.00 | 0.76 | 0.89 | 0.88 |
| 1RNK | 20 | 8 | 4 | 2 | 34 | 0.83 | 0.91 | 0.67 | 0.87 | 0.82 |
| 1YG3 | 16 | 12 | 0 | 0 | 28 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1YMO | 30 | 15 | 2 | 0 | 47 | 0.94 | 1.00 | 0.88 | 0.97 | 0.96 |
| 2GCV | 72 | 45 | 20 | 14 | 151 | 0.78 | 0.84 | 0.69 | 0.81 | 0.77 |
| 2H0X | 78 | 46 | 16 | 12 | 152 | 0.83 | 0.87 | 0.74 | 0.85 | 0.82 |
| 3GX3 | 50 | 21 | 14 | 9 | 94 | 0.78 | 0.85 | 0.60 | 0.81 | 0.76 |
| 3SUY | 54 | 21 | 22 | 4 | 101 | 0.71 | 0.93 | 0.49 | 0.81 | 0.74 |
| 4ENB | 22 | 20 | 2 | 8 | 52 | 0.92 | 0.73 | 0.91 | 0.81 | 0.81 |
| 4GXY | 92 | 46 | 26 | 8 | 172 | 0.78 | 0.92 | 0.64 | 0.84 | 0.80 |
| 4LW0 | 56 | 21 | 10 | 2 | 89 | 0.85 | 0.97 | 0.68 | 0.90 | 0.87 |
| 4PQV | 40 | 22 | 4 | 2 | 68 | 0.91 | 0.95 | 0.85 | 0.93 | 0.91 |
| bpRNA\_PDB\_193 | 0 | 28 | 88 | 45 | 161 | 0.00 | 0.00 | 0.24 | 0.00 | 0.17 |
| bpRNA\_PDB\_27 | 74 | 29 | 16 | 1 | 120 | 0.82 | 0.99 | 0.64 | 0.90 | 0.86 |
| bpRNA\_RNP\_107 | 126 | 105 | 36 | 34 | 301 | 0.78 | 0.79 | 0.74 | 0.78 | 0.77 |
| bpRNA\_RNP\_111 | 82 | 89 | 24 | 54 | 249 | 0.77 | 0.60 | 0.79 | 0.68 | 0.69 |
| bpRNA\_RNP\_112 | 152 | 114 | 44 | 96 | 406 | 0.78 | 0.61 | 0.72 | 0.68 | 0.66 |
| bpRNA\_RNP\_113 | 122 | 109 | 30 | 75 | 336 | 0.80 | 0.62 | 0.78 | 0.70 | 0.69 |
| bpRNA\_RNP\_386 | 102 | 105 | 30 | 57 | 294 | 0.77 | 0.64 | 0.78 | 0.70 | 0.70 |
| bpRNA\_RNP\_387 | 92 | 101 | 50 | 97 | 340 | 0.65 | 0.49 | 0.67 | 0.56 | 0.57 |
| bpRNA\_RNP\_43 | 156 | 89 | 30 | 66 | 341 | 0.84 | 0.70 | 0.75 | 0.76 | 0.72 |
| bpRNA\_tmRNA\_198 | 90 | 116 | 66 | 76 | 348 | 0.58 | 0.54 | 0.64 | 0.56 | 0.59 |

1. Results of Ufold

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene\_Name** | **TP** | **TN** | **FP** | **FN** | **Length** | **Precision** | **Recall** | **Specificity** | **F1\_Score** | **Accuracy** |
| 1A60 | 28 | 14 | 2 | 0 | 44 | 0.93 | 1.00 | 0.88 | 0.97 | 0.95 |
| 1E\_95 | 24 | 12 | 0 | 0 | 36 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1KPY | 14 | 12 | 6 | 1 | 33 | 0.70 | 0.93 | 0.67 | 0.80 | 0.79 |
| 1KPZ | 14 | 12 | 6 | 1 | 33 | 0.70 | 0.93 | 0.67 | 0.80 | 0.79 |
| 1RNK | 22 | 10 | 2 | 0 | 34 | 0.92 | 1.00 | 0.83 | 0.96 | 0.94 |
| 1YG3 | 16 | 12 | 0 | 0 | 28 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1YMO | 30 | 13 | 4 | 0 | 47 | 0.88 | 1.00 | 0.76 | 0.94 | 0.91 |
| 2GCV | 66 | 42 | 28 | 15 | 151 | 0.70 | 0.81 | 0.60 | 0.75 | 0.72 |
| 2H0X | 64 | 44 | 24 | 20 | 152 | 0.73 | 0.76 | 0.65 | 0.74 | 0.71 |
| 3GX3 | 60 | 20 | 14 | 0 | 94 | 0.81 | 1.00 | 0.59 | 0.90 | 0.85 |
| 3SUY | 58 | 12 | 30 | 1 | 101 | 0.66 | 0.98 | 0.29 | 0.79 | 0.69 |
| 4ENB | 30 | 14 | 8 | 0 | 52 | 0.79 | 1.00 | 0.64 | 0.88 | 0.85 |
| 4GXY | 100 | 36 | 36 | 0 | 172 | 0.74 | 1.00 | 0.50 | 0.85 | 0.79 |
| 4LW0 | 58 | 14 | 16 | 1 | 89 | 0.78 | 0.98 | 0.47 | 0.87 | 0.81 |
| 4PQV | 42 | 18 | 8 | 0 | 68 | 0.84 | 1.00 | 0.69 | 0.91 | 0.88 |
| bpRNA\_PDB\_193 | 32 | 32 | 58 | 39 | 161 | 0.36 | 0.45 | 0.36 | 0.40 | 0.40 |
| bpRNA\_PDB\_27 | 70 | 38 | 6 | 6 | 120 | 0.92 | 0.92 | 0.86 | 0.92 | 0.90 |
| bpRNA\_RNP\_107 | 168 | 117 | 12 | 4 | 301 | 0.93 | 0.98 | 0.91 | 0.95 | 0.95 |
| bpRNA\_RNP\_111 | 130 | 91 | 16 | 12 | 249 | 0.89 | 0.92 | 0.85 | 0.90 | 0.89 |
| bpRNA\_RNP\_112 | 234 | 92 | 60 | 20 | 406 | 0.80 | 0.92 | 0.61 | 0.85 | 0.80 |
| bpRNA\_RNP\_113 | 118 | 91 | 66 | 61 | 336 | 0.64 | 0.66 | 0.58 | 0.65 | 0.62 |
| bpRNA\_RNP\_386 | 158 | 95 | 32 | 9 | 294 | 0.83 | 0.95 | 0.75 | 0.89 | 0.86 |
| bpRNA\_RNP\_387 | 160 | 86 | 50 | 44 | 340 | 0.76 | 0.78 | 0.63 | 0.77 | 0.72 |
| bpRNA\_RNP\_43 | 204 | 76 | 42 | 19 | 341 | 0.83 | 0.91 | 0.64 | 0.87 | 0.82 |
| bpRNA\_tmRNA\_198 | 156 | 117 | 58 | 17 | 348 | 0.73 | 0.90 | 0.67 | 0.81 | 0.78 |