|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Data set | # of miRNAs input | Overlapping of the predicted sites from different tools | TarPmiR | miRanda | TargetScan | miRmap |
| I  | 60 | # of predicted true sites | 11904 | 7061 | 6248 | 7121 |
| True sites shared by ≥2  | 9211(77.4%) | 6652(94.2%) | 5873(94.0%) | 6500(91.3%) |
| Shared by ≥3 | 5219(43.8%) | 4722(66.9%) | 4256(68.1%) | 4227(60.1%) |
| Shared by 4 | 1810(15.2%) | 1810(25.6%) | 1810(29.0%) | 1810(25.4%) |
| 120 | # of predicted true sites | 13846 | 9683 | 8969 | 10851 |
| True sites shared by ≥2  | 12814(92.5%) | 9479(97.9%) | 8784(97.9%) | 10504(96.8%) |
| Shared by ≥3 | 9328(67.4%) | 8026(82.9%) | 7435(82.9%) | 8274(76.3%) |
| Shared by 4 | 4056(29.3%) | 4056(41.9%) | 4056(45.2%) | 4056(37.4%) |
| II | 60 | # of predicted true sites | 34301 | 20378 | 17556 | 20543 |
| True sites shared by ≥2  | 27450(80.0%) | 19303(94.7%) | 16765(95.5%) | 19145(93.2%) |
| Shared by ≥3 | 16261(47.4%) | 14289(70.1%) | 12811(73.0%) | 12856(62.6%) |
| Shared by 4 | 5676(16.5%) | 5676(27.9%) | 5676(32.3%) | 5676(27.6%) |
| 120 | # of predicted true sites | 38821 | 23762 | 24578 | 30533 |
| True sites shared by ≥2  | 36049(92.9%) | 23402(98.5%) | 24147(98.2%) | 29712(97.3%) |
| Shared by ≥3 | 25659(66.1%) | 20543(86.5%) | 20761(84.5%) | 22727(74.4%) |
| Shared by 4 | 10919(28.1%) | 10919(46.0%) | 10919(44.4%) | 10919(35.8%) |
| III | 119 | # of predicted true sites | 10766 | 9069 | 10804 | 7840 |
| True sites shared by ≥2  | 10698(99.4%) | 9068(99.99%) | 10736(99.4%) | 7835(99.9%) |
| Shared by ≥3 | 9951(92.4%) | 8984(99.1%) | 9964(92.2%) | 7762(99.0%) |
| Shared by 4 | 6703(62.3%) | 6703(73.9%) | 6703(62.0%) | 6703(85.5%) |
| CLASH | # of predicted true sites | 4695 | 3852 | 1164 | 1821 |
| True sites shared by ≥2  | 2907(61.9%) | 3287(85.3%) | 1128(96.9%) | 1767(97.0%) |
| Shared by ≥3 | 1321(28.1%) | 1556(40.4%) | 1077(92.5%) | 1507(82.8%) |
| Shared by 4 | 793(16.9%) | 793(20.6%) | 793(68.1%) | 793(43.5%) |

***Table S4 Overlapping of the predicted true binding sites from different tools***