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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type | Software | Version | Databases | Database Building Resources | Average Runtime/Sample | Runtime Resources | Citations  (12/22/2021) | Publication Year |
| DNA | Blastn | v 2.12.0 | nt (172 GB) | Pre-built\* | ~2 hr | 12 threads, 1.75 GB | 10705 | 2009 |
| Kraken2 | v. 2.1.2 | miniKrakenV2 (8 GB) | Pre-built\* | >1 min | 12 thread, 7.46 GB | 893 | 2019 |
| standard (53 GB) | Downloaded\*\* | ~1 min | 12 thread, 50.54 GB |
| maxikraken2 (150GB) | Downloaded\*\* | ~3 min | 12 threads, 140.23 GB |
| custom (60 GB) | 12 threads, 60.28 GB, ~26 hrs | ~1 min | 12 threads, 59.36 GB |
| Bracken | v 2.6.1 | standard (2.7 GB) | Downloaded\*\* | >1 min | 12 thread, 0 MB | 384 | 2017 |
| CLARK | v.1.2.6.1 | bacteria (archaea) viruses human (168 GB) | 12 threads, 404.48 GB, ~43 hr | ~3 min | 12 threads, 136.83 GB | 457 | 2015 |
| CLARK-s | v.1.2.6.2 | bacteria (archaea) + viruses | 12 threads, (261.15 + 30.59) GB, ~37 hr | ~3 min | 12 threads, (289.81 + 72.03) GB | 76 | 2016 |
| Centrifuge | v. 1.0.4 | h+p+v+c (33 GB) | pre-built\* | ~3 min | 12 threads, 30.62 GB | 659 | 2016 |
| Marker | Metaphlan | v. 3.0.13 | mpa\_v30\_CHOCOPhlAn\_201901\_marker (2.8 GB) | pre-built\* | ~2 min | 12 threads, 3.10 GB | 1292 | 2015 |
| Protein | Diamond | v. 2.0.13 | nr (218 GB) | 12 threads, 7.98 GB, ~2 hr | ~5 hr | 12 threads,9 GB | 4825 | 2015 |
| Kaiju | v.1.8.2 | Refseq (234 GB) | 12 threads, 115.75GB, ~5 hr | ~1 min | 12 threads, 60.27 GB | 839 | 2016 |

\***Pre-built**: the database was pre-built by the developer of the software and was distributed with the software release.

\*\***Downloaded**: the database was built previously with the contribution of the science community and distributed online.