|  |  |  |
| --- | --- | --- |
|   | **PicoPLEX WGA Kit (Commercial kit)** | The recommended volume of each component for the preparation of the master mix for different numbers of samples |
| **Master mix** |  **Components in the kit** | **Volume required for each sample (µL)** | **Recommended volume (µL) for 1 sample** | **Recommended volume (µL) for 8 samples** | **Recommended volume (µL) for 16 samples** | **Recommended volume (µL) for 32 samples** |
| Cell lysis mix | Extraction enzyme dilution buffe | 4.8 | Prepare the corresponding volume directly from each component | Prepare a volume required for 10 samples | Prepare a volume required for 20 samples | Prepare a volume required for 37 samples |
| Cell extraction enzyme | 0.2 |
| Pre-amplification mix | Pre-amp buffer | 4.8 |
| Pre-amp enzyme | 0.2 |
| Whole genome amplification mix | Amplification buffer   | 25 | Prepare a volume required for 9 samples | Prepare a volume required for 18 samples | Prepare a volume required for 35 samples |
| Amplification enzyme | 0.8 |
| Nuclease-free water | 34.2 |
|   |   |   |   |   |   |   |
|   | **Independently developed WGA reagents** |  |  |  |   |
| **Master mix** | **Components** | **Volume required for each sample (µL)** | **Recommended volume (µL) for 1 sample** | **Recommended volume (µL) for 8 samples** | **Recommended volume (µL) for 16 samples** | **Recommended volume (µL) for 32 samples** |
|   | Cell lysis buffer | 2 | Prepare the corresponding volume directly from the cell lysis buffer | Prepare the corresponding volume directly from the cell lysis buffer | Prepare the corresponding volume directly from the cell lysis buffer | Prepare the corresponding volume directly from the cell lysis buffer |
| Whole genome amplification mixture | Amplification Pre-mixed solution | 16 | Prepare the corresponding volume directly from each component | Prepare a volume required for 9 samples | Prepare a volume required for 18 samples | Prepare a volume required for 35 samples |
| Amplification Enzyme | 1 |
| Nuclease-free water | 28 |

**Supplementary File 1**