# VAHTS Maxi Unique Dual Barcode Primers Set 2 for MGI

**NM34402**　　Version 24.1

## Product Description

VAHTS Maxi Unique Dual Barcode Primers Set 2 for MGI is a specialized kit for DNA library preparation based on the MGI sequencers. The VAHTS Universal Adapter for MGI in the kit is the stubby adapter that can be compatible with various library preparation kits based on the T-A ligation. VAHTS Unique Dual Barcode Primer for MGI contains specifically paired Unique Dual Barcode (UDB). After library preparation, it can achieve two distinct and unrelated index sequences double verification, minimizing index hopping and index misassignment, ensuring that the reads in downstream analysis are nearest to the truth.

This kit includes Universal Adapters and 96 different VAHTS Unique Dual Barcode Primer for MGI. All the reagents provided in the kit have undergone rigorous quality control and functional testing to ensure the optimal stability and repeatability of library preparation.

## Components

| Components | NM34402-01 (384 rxns) |
|---|---|
| VAHTS Unique Dual Barcode Primer for MGI | 20 µl each |
| VAHTS Universal Adapter for MGI | 4 × 480 µl |

▲ The amount of DNA Adapter used for a DNA library depends on the amount of input DNA. For details, please refer to the Appendix.

▲ The concentration of VAHTS Universal Adapter for MGI is 15 µM; the concentration of VAHTS Unique Dual Barcode Primer for MGI is 12 µM.

**NM34402 Components**

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 097 | 107 | 117 | 127 | 137 | 147 | 157 | 167 | 177 | 187 |
| 2 | 098 | 108 | 118 | 128 | 138 | 148 | 158 | 168 | 178 | 188 |
| 3 | 099 | 109 | 119 | 129 | 139 | 149 | 159 | 169 | 179 | 189 |
| 4 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | **389** |
| 5 | **387** | 111 | 121 | 131 | 141 | 151 | 161 | 171 | 181 | 191 |
| 6 | **388** | 112 | 122 | 132 | 142 | 152 | 162 | 172 | 182 | 192 |
| 7 | 103 | 113 | 123 | 133 | 143 | 153 | 163 | 173 | 183 | Ada |
| 8 | 104 | 114 | 124 | 134 | 144 | 154 | 164 | 174 | 184 | Ada |
| 9 | 105 | 115 | 125 | 135 | 145 | 155 | 165 | 175 | 185 | Ada |
| 10 | 106 | 116 | 126 | 136 | 146 | 156 | 166 | 176 | 186 | Ada |

▲ The 8 Barcodes marked with the same color in the table can ensure base balance and are recommended to be used in groups.

## Storage

Store at -30 ~ -15°C and ship at ≤0°C.

## Applications

VAHTS Maxi Unique Dual Barcode Primers Set 2 for MGI (Vazyme #NM34402) is a specialized kit for Vazyme NDM/NRM series library preparation kits, compatible with various sample types: genomic DNA, cfDNA, FFPE DNA, etc. It is suitable for mutiple dual-index DNA libraries for MGI sequencers, and can effectively avoid cross-contamination between samples.

## Notes

1. The amount of DNA Adapter used depends on the amount of input DNA. For details, please refer to the Appendix.

2. Don't premix Adapter, Ligation Buffer and Ligase to prevent adapter self-ligation.

3. Don't store the adapters above room temperature (15 ~ 25°C) which may result in decreasing ligation efficiency.

## Appendix

Table 1. Recommended the Dilution Ratio and Volume of Adapters for Vazyme #NDM607 (Mechanical Fragmentation)

| Input DNA | Adapter dilution ratio | Volume (μl) |
|---|---|---|
| 1 ng | 1:40 | 5 |
| 10 ng | 1:10 | 5 |
| 50 ng | 1:2 | 5 |
| 100 ng | Undiluted | 5 |
| ≥500 ng | Undiluted | 5 |

Table 2. Recommended the Dilution Ratio and Volume of Adapters for Vazyme #NDM627 (Enzymatic Fragmentation)

| Input DNA | Adapter dilution ratio | Volume (μl) |
|---|---|---|
| 1 ng | 1:60 | 5 |
| 10 ng | 1:10 | 5 |
| 50 ng | 1:2 | 5 |
| 100 ng | Undiluted | 5 |
| ≥500 ng | Undiluted | 5 |

Table 3. Recommended the Dilution Ratio and Volume of Adapters for Vazyme #NRM605 (RNA Library Preparation)

| Input RNA | Adapter dilution ratio | Volume (μl) |
|---|---|---|
| 10 ng | 1:10 | 1 |
| 100 ng | 1:10 | 3 |
| 1 μg | 1:10 | 5 |