Tinzyme Co., Limited

Email: sales@tinzyme.com Website: www.tinzyme.com
Tel: +86-755-86134126 WhatsApp/Facebook/Twitter: +86-189-22896756

NGS Multiplex Oligos for MGI (Index primer mix Set I)

Product Number: EK0613

Shipping and Storage

Storage condition: Store at -20℃, transport with ice packs.

Components

Component	96 rxns
Adaptor for MGI	480μL
Index primer Mix (1-48)for MGI	48×12L

Description

This kit provides Adaptors and Index primer Mix required for next-generation sequencing on the MGI platform and is specially designed for the MGI sequencing platform. The Adaptor has been optimized on the basis of the original MGI platform version. The improved universal Adaptor contains no Barcode sequence to facilitate automated operation, and possesses binding sites for Universal primer and Index primer. Barcode sequences are introduced via Index primers. The optimized adaptor can significantly improve library ligation efficiency, transformation efficiency and amplification efficiency.

This series consists of three kits:

EK0613: NGS Multiplex Adaptor & Primer Kit I (MGI Platform Barcode 1–48)

EK0616: NGS Multiplex Adaptor & Primer Kit II (MGI Platform Barcode 49–96)

EK0617: NGS Multiplex Adaptor & Primer Kit III (MGI Platform Barcode 97–128)

They cover Barcode sequences 1–128 for the MGI sequencing platform. Libraries prepared with this product are compatible with MGI sequencers including BGISEQ-500RS (PE50/PE100/PE150), MGISEQ-2000RS (PE100/PE150), and MGISEQ-200RS (PE100).

Self-supplied Instruments, Reagents and Consumables

1. Magnetic stand: DynaMag™-2 is recommended.
2. DNA Purification and Recovery Kit: Our magnetic bead-based DNA Purification and Recovery Kit (Cat.No. DNK2508) is recommended.
3. DNA library construction kit: cfDNA Rapid Library Preparation Kit (MGI Platform), Fast NGS Library Kit for Illumina&MGI (Cat.No. PCK85M), and NGS FragFast DNA Library Prep Kit (Illumina & MGI) (Cat.No. EK0621) are recommended.
4. Anhydrous ethanol;
5. Reaction tubes: low-binding PCR tubes and 1.5mL centrifuge tubes are recommended; Pipette tips: high-quality filter tips are recommended to prevent contamination of kits and library samples.

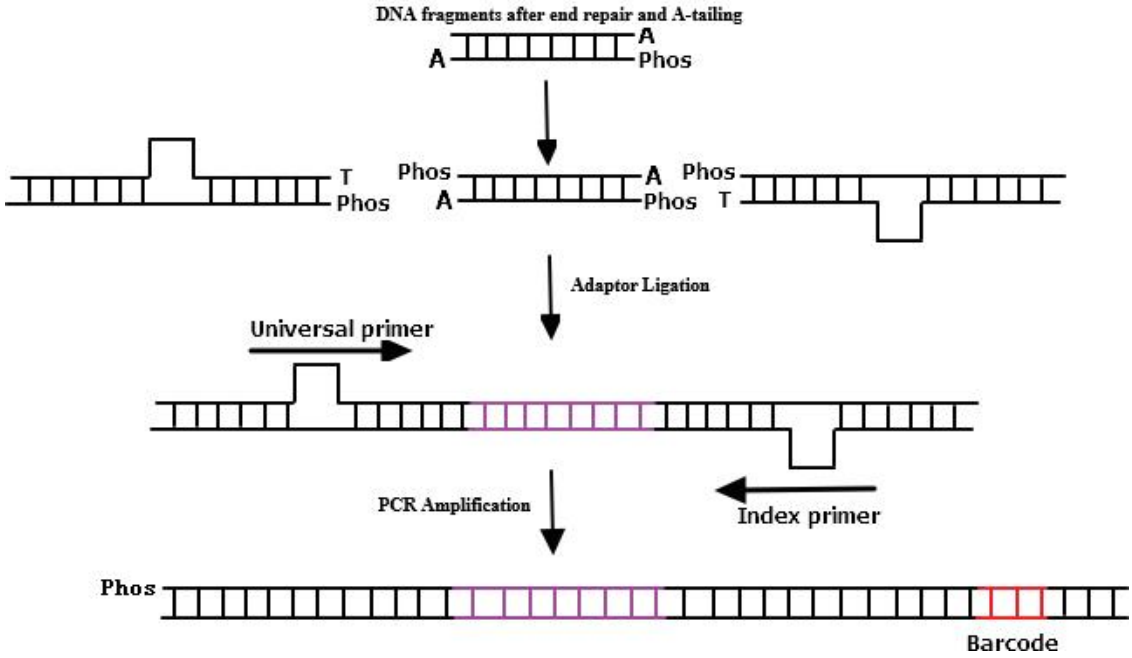
Pre-experiment Preparation and Important Notes

1. Adaptors are double-stranded. Do not store them above room temperature to avoid denaturation and loss of performance.
2. Briefly centrifuge index primers before opening the cap to collect liquid at the bottom of the tube and prevent cross-contamination between different primers.

Workflow

Tinzyme Co., Limited

Email: sales@tinzyme.com Website: www.tinzyme.com
Tel: +86-755-86134126 WhatsApp/Facebook/Twitter: +86-189-22896756



Structure of the constructed library

5'-TGTGAGCCAAGGAGTTG[barcode]TTGTCTTCCTAAGACCGCTTGGCCTCCG

ACTT[DNA insefi]AAGTCGGATCGTAGCCATGTCGTTC -3'

Barcode: 10 bases, see the Table below for specific sequences

DNA insert: Target sequencing sequence inserted

Protocol

The usage of NGS Multiplex Adaptor & Primer Kit I shall follow the protocol of Fast NGS Library Kit for Illumina&MGI (Cat.No. PCK85M).

Index primer Mix is formulated with Universal primer and Index primer, including 48 types of Index primers. According to different multiplex sequencing strategies, different Indexes can be added to each sample, or one set of Indexes can be added to a single sample. It is required that all Indexes in the pooled library are grouped by complete sets.

Among Index 1–16, 4 Indexes form one set, with a total of 4 sets: 1–4, 5–8, 9–12, 13–16. Among Index 17–48, 8 Indexes form one set, with a total of 4 sets: 17–24, 25–32, 33–40 and 41–48.

Table: Barcode 1-48 for MGI

Barcode 1	TAGGTCCGAT	Barcode 25	TAGAGGACAA
Barcode 2	GGACGGAATC	Barcode 26	CCTAGCGAAT
Barcode 3	CTTACTGCCG	Barcode 27	GTAGTCATCG
Barcode 4	ACCTAATTGA	Barcode 28	GCTGAGCTGT
Barcode 5	TTCGTATCCG	Barcode 29	AACCTAGATA
Barcode 6	GGTAACGAGC	Barcode 30	TTGCCATCTC
Barcode 7	CAACGTATAA	Barcode 31	AGATCTTGCG
Barcode 8	ACGTCGCGTT	Barcode 32	CGCTATCGGC
Barcode 9	TTCTGCTAGC	Barcode 33	GCAACGATGG
Barcode 10	AGGAAGATAG	Barcode 34	TAATCGTTCA
Barcode 11	GCTCTTGCTT	Barcode 35	GTTCGCTCTA

Tinzyme Co., Limited

Email: sales@tinzyme.com Website: www.tinzyme.com
Tel: +86-755-86134126 WhatsApp/Facebook/Twitter: +86-189-22896756

Barcode 12	CAAGCACGCA	Barcode 36	TCTCACACAT
Barcode 13	CGGCAATCCG	Barcode 37	CTGTTAGGAT
Barcode 14	ATCAGGATTC	Barcode 38	CGCAGACGCG
Barcode 15	TCATTCCAGA	Barcode 39	AAGGATCATC
Barcode 16	GATGCTGGAT	Barcode 40	AGCGTTGAGC
Barcode 17	GTGAGTGATG	Barcode 41	TTAGATGCAT
Barcode 18	GAGTCAGCTG	Barcode 42	GTCCAGAGCT
Barcode 19	TGTCTGCGAA	Barcode 43	CACGTGATAG
Barcode 20	ATTGGTACAA	Barcode 44	CCACTAGTCC
Barcode 21	CGATTGTGGT	Barcode 45	TGGACTTGGC
Barcode 22	ACAGACTTCC	Barcode 46	GCTTGACAGG
Barcode 23	TCCACACTCT	Barcode 47	AAGACCTCTA
Barcode 24	CACCACAAGC	Barcode 48	AGTTGCCATA