

S1 Fig. The library procedure, thermal cycle settings, and primer sequences of the MiFish method in this study.

**Procedure of library preparation**

1<sup>st</sup> PCR(repeat 4 times)



DNA purification



2<sup>nd</sup> PCR



DNA purification



Library preparation finished

1 <sup>st</sup> PCR(repeat 4 times) reaction system:		Thermal cycles setting:		35 cycles
10×Ex Buffer	1.0μl	95°C	3min	
dNTPs(each 2.5mM)	0.8μl	98°C	20s	
10μM Forward primer	0.5μl	65°C	15s	
10μM Reverse primer	0.5μl	72°C	20s	
Template DNA(max 2ng/μl)	2.0μl	72°C	5min	
ExTaq[TaKaRa](5U/μl)	0.1μl			
Double distilled water	5.1μl			
<b>Total</b>	<b>10.0μl</b>			

Primer sequence:	
primer name	Sequence(5'→3')
1 <sup>st</sup> -MiFish U-F	ACACTCTTTCCTACACGACGCTCTTCCGATC TNNNNNGTCGGTAAAACTCGTGCCAGC
1 <sup>st</sup> -MiFish E-F	ACACTCTTTCCTACACGACGCTCTTCCGATC TNNNNNGTTGGTAAATCTCGTGCCAGC
1 <sup>st</sup> -MiFish U-R	GTGACTGGAGTTCAGACGTGTGCTCTTCCGAT CTNNNNNNCATAGTGGGGTATCTAATCCCAGT TTG
1 <sup>st</sup> -MiFish E-R	GTGACTGGAGTTCAGACGTGTGCTCTTCCGAT CTNNNNNNCATAGTGGGGTATCTAATCCCAGT TTG

2 <sup>nd</sup> PCR reaction system:		Thermal cycles setting:		12 cycles
10×Ex Buffer	1.0μl	94°C	2min	
dNTPs(each 2.5mM)	0.8μl	94°C	30s	
10μM Forward primer	0.5μl	60°C	30s	
10μM Reverse primer	0.5μl	72°C	30s	
products from 1 <sup>st</sup> PCR(max 2ng/μl)	2.0μl	72°C	5min	
ExTaq[TaKaRa](5U/μl)	0.1μl			
Double distilled water	5.1μl			
<b>Total</b>	<b>10.0μl</b>			

Primer sequence:	
primer name	Sequence(5'→3')
2 <sup>nd</sup> F	AATGATACGGCGACCACCGAGATCTACAC- Index2*-ACACTCTTTCCTACACGACGC
2 <sup>nd</sup> R	CAAGCAGAAGACGGCATACGAGAT-Index1*- GTGACTGGAGTTCAGACGTGTG

\*Recorded in S3 Table.