Product Information	
Twist Library Preparation Kit 1: Mechanical Fragmentation, 96 Samples	
QIAGEN Part Number	CMK0022-96
Twist P/N	100876
Unit Size	96 reactions
Storage Temperature	-25˚C to -15˚C
Twist Lot Number	3200000185
Twist Expiry Date	08/2022
Kit Manufacturing Date	11/05/2020
Reference Number	66168664

Product Description:

Twist Library Preparation Kit 1: Mechanical Fragmentation

Kit Components						
Description	**QIAGEN P/N**	**QIAGEN Lot Number**	**QIAGEN Expiry**	**Twist P/N**	**Twist Lot Number**	**Twist Expiry**
5X ER/A-Tailing Enzyme Mix	Y9420C-6	101920	10/2022	101222	3200000180	10/2022
10X ERA Buffer	B9420C-6	080920	08/2022	101223	3200000181	08/2022
DNA Ligation Mix	L6030C-11	82101620	10/2022	100581	3200000182	10/2022
DNA Ligation Buffer	B9020C-6	082020	08/2023	100582	3200000183	08/2023
Amplification Primers, ILMN	CM0171C-1	N/A	N/A	100583	3200000184	10/2022

Product Specifications	
Y9240	
Assay	**ER/A Tailing Enzyme Mix Functional Assay**
Specification	Functional

Product Specifications						
L6030						
Assay	**SDS Purity**	**Specific Activity**	**SS Exonuclease**	**DS Exonuclease**	**DS Endonuclease**	**E. coli DNA Contamination**
Units Tested	**n/a**	**n/a**	**6,000 U**	**6,000 U**	**6,000 U**	**6,000 U**
Specification	>99%	300,000 U/mg	< 1.0 % Released	< 1.0 % Released	No Conversion	< 10 copies

Quality Control Analysis:

Enzyme components were tested prior to assembly and found free of contaminating endonucleases and exonucleases. Enzyme purity was >95% as determined by SDS-PAGE and negligible *E.coli* genomic DNA contamination was confirmed by qPCR. Specific activity was verified for each enzyme.

Limitations of Use

This product was developed, manufactured, and sold for *in vitro* use only. The product is not suitable for administration to humans or animals. MSDS sheets relevant to this product are available upon request.

L6030:

Unit Activity is measured using a 2-fold serial dilution method. Dilutions of enzyme batch were made in 1X DNA Ligase Reaction Buffer and added to 20 µL reactions containing double stranded DNA fragments and 1X DNA Ligase Reaction Buffer. Reactions are incubated for 30 minutes at 23°C, stopped, and analyzed on a 1% agarose gel stained with ethidium bromide.

Protein Concentration is determined by OD_{280} absorbance.

Physical Purity is evaluated by SDS-PAGE of concentrated and diluted enzyme solutions followed by silver stain detection. Purity is assessed by comparing the aggregate mass of contaminant bands in the concentrated sample to the mass of the protein of interest band in the diluted sample.

Single-Stranded Exonuclease is determined in a 50 µL reaction containing a radiolabeled single-stranded DNA substrate and 10 µL of enzyme solution incubated for 4 hours at 37°C.

Double-Stranded Exonuclease is determined in a 50 µl reaction containing a radiolabeled double-stranded DNA substrate and 10 µL of enzyme solution incubated for 4 hours at 37°C.

Double-Stranded Endonuclease is determined in a 50 µL reaction containing 0.5 µg of plasmid DNA and 10 µL of enzyme solution incubated for 4 hours at 37°C.

E.coli 16S rDNA Contamination is evaluated using 5 µL **r**eplicate samples of enzyme solution denatured and screened in a TaqMan qPCR assay for the presence of contaminating *E.coli* genomic DNA using oligonucleotide primers corresponding to the 16S rRNA locus.

Y9420:

ER/A Tailing Enzyme Mix Functional Assay: QC Library length must be within 15% of the reference library length. Concentration of the QC library generated from 100 ng input DNA (average ~300 bp fragments) is >60 nm with mapped reads > 90%. For QC library, normalized coverage should be within 0.7 to 1.3 for most of the genome (10% - 80% GC content).

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