

Product Information	
<b>Twist Library Preparation Kit 1: Mechanical Fragmentation, 16 Samples</b>	
QIAGEN Part Number	CMK0022-16
Twist P/N	100875
Unit Size	16 reactions
Storage Temperature	-25°C to -15°C
Twist Lot Number	3200000191
Twist Expiry Date	08/2022
Kit Manufacturing Date	11/10/2020
Reference Number	66168679

**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-5	101920	10/2022	101220	3200000186	10/2022
10X ERA Buffer	B9420C-5	080920	08/2022	101221	3200000187	08/2022
DNA Ligation Mix	L6030C-9	82101620	10/2022	100263	3200000188	10/2022
DNA Ligation Buffer	B9020C-4	082020	08/2023	100264	3200000189	08/2023
Amplification Primers, ILMN	CM0171C-2	N/A	N/A	100220	3200000190	10/2022

Product Specifications	
Y9420	
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  $\mu$ L 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<sub>280</sub> 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  $\mu$ L reaction containing a radiolabeled single-stranded DNA substrate and 10  $\mu$ L of enzyme solution incubated for 4 hours at 37°C.

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

**Double-Stranded Endonuclease** is determined in a 50  $\mu$ L reaction containing 0.5  $\mu$ g of plasmid DNA and 10  $\mu$ L of enzyme solution incubated for 4 hours at 37°C.

**E.coli 16S rDNA Contamination** is evaluated using 5  $\mu$ L replicate 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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