

## Product Components

Components	Component Number	1,500 U	15,000 U
Exonuclease I ( <i>E.coli</i> ) (20,000 U/mL)	RM20519	75 µL	750 µL
10X Exonuclease I Reaction Buffer	RM20130	1.25 mL	3 × 1.25 mL

## Product Description

Exonuclease I (*E. coli*) catalyzes the removal of nucleotides from single-stranded DNA in the 3' to 5' direction.

Exonuclease I degrades excess single-stranded primer oligonucleotides from a reaction mixture containing doublestranded extension products.

### Product Source

An *E. coli* strain that carries the cloned Exo I gene from *E.coli* NM554.

### Unit Definition

One unit is defined as the amount of enzyme that will catalyze the release of 10 nmol of acid-soluble nucleotide in a total reaction volume of 50 µL in 30 minutes at 37°C in 1X Exonuclease I Reaction Buffer with 0.17 mg/ml single-stranded [<sup>3</sup>H]-DNA.

### Reaction Conditions

1X Exonuclease I Reaction Buffer; Incubate at 37°C

### 1X Exonuclease I Reaction Buffer

67 mM Glycine-KOH, 6.7 mM MgCl<sub>2</sub>, 10 mM β-ME, pH 9.5 @25°C

### Storage Temperature

-20°C

### Storage Conditions

10 mM Tris-HCl, 100 mM NaCl, 5 mM β-ME, 0.5 mM EDTA, 100 µg/ml BSA, 50% Glycerol, pH 7.5 @ 25°C.

### Heat Inactivation

80°C for 20 min

## Instructions

### Enzymatic PCR Cleanup Protocol

1. Add 0.5 µL of Exo I and 1 µL of rSAP to 5 µL of PCR product.
2. Incubate the mix at the 37°C for 15 minutes.
3. Inactivate both enzymes at 80°C for 15 minutes.
4. PCR products are ready for downstream application.

### QC Process

- ◆ Purity is above 95% detected by SDS-PAGE.
- ◆ No endonucleases, non-specific DNase and other RNases contamination.
- ◆ No residual host genomic DNA detected by PCR.