Rapid Bluntization Kit

The Rapid Bluntization Kit is suitable for blunt-end ligation of double-stranded DNA (dsDNA) through a single reaction. This kit can transform dsDNA containing 5' or 3' overhangs into blunt-ended double-stranded DNA with 5' phosphates and 3' hydroxyl groups, facilitating efficient ligation with blunt-ended vectors or linkers.

The Blunting Enzyme Mix provided in this kit contains T4 DNA Polymerase, which has both 3'->5' exonuclease activity and 5'->3' polymerase activity, enabling the enzyme to trim and fill in the ends of double-stranded DNA to create blunt ends. The T4 Polynucleotide Kinase in the Blunting Enzyme Mix can phosphorylate the 5' ends of blunt-ended double-stranded DNA and, through its 3' phosphatase activity, convert 3' phosphates to 3' hydroxyl groups, ensuring that the DNA is ready for ligation with subsequent vectors or linkers.

This kit has been optimized to allow for the blunting, 5' phosphorylation, and 3' hydroxylation of up to 5ug of DNA in a single reaction.

Kit Components:

1. Blunting Enzyme Mix: 20uL
2. Blunting Buffer [10x]: 100uL
3. dNTP Mix [1mM]: 60uL

Catalog No.	514005
Size	20 rxns
Product Category	Cloning / Ligation
Storage/Stability	-20°C/1 year
Shipping	Gel Packs