

## Complete REact<sup>®</sup> Buffer Set

Cat. No.: 15461-023

Store at **-20°C**

### Description

The Complete REact<sup>®</sup> Buffer Set provides a comprehensive set of Invitrogen buffers for use with Invitrogen restriction endonucleases. Detailed instructions are provided on each restriction endonuclease product profile.

### Contents and Storage

The Complete REact<sup>®</sup> Buffer Set contains the buffers for restriction digestions listed below. REact buffers are also available from Invitrogen separately. **Store all buffers at -20 C.**

Buffer	Amount	Catalog no.
REact <sup>®</sup> 1	1 ml	16301-012
REact <sup>®</sup> 2	1 ml	16302-010
REact <sup>®</sup> 3	1 ml	16303-018
REact <sup>®</sup> 4	1 ml	16304-016
REact <sup>®</sup> 6	1 ml	16306-011
REact <sup>®</sup> 7	1 ml	16307-019
REact <sup>®</sup> 8	1 ml	16308-017
REact <sup>®</sup> 10	1 ml	16310-013
10 mM DTT	250 µl	

### Buffer Compositions

The buffers provided in the Complete REact<sup>®</sup> Buffer Set have the following composition (at 1X Concentration):

REact <sup>®</sup> 1:	50 mM Tris-HCl (pH 8.0) 10 mM MgCl <sub>2</sub>	REact <sup>®</sup> 7:	50 mM Tris-HCl (pH 8.0) 10 mM MgCl <sub>2</sub> 50 mM KCl 50 mM NaCl
REact <sup>®</sup> 2:	50 mM Tris-HCl (pH 8.0) 10 mM MgCl <sub>2</sub> 50 mM NaCl	REact <sup>®</sup> 8:	20 mM Tris-HCl (pH 7.4) 10 mM MgCl <sub>2</sub>
REact <sup>®</sup> 3:	50 mM Tris-HCl (pH 8.0) 10 mM MgCl <sub>2</sub> 100 mM NaCl	REact <sup>®</sup> 10:	100 mM Tris-HCl (pH 7.6) 10 mM MgCl <sub>2</sub> 150 mM NaCl
REact <sup>®</sup> 4:	20 mM Tris-HCl (pH 7.4) 5 mM MgCl <sub>2</sub> 50 mM KCl	DTT:	10 mM Dithiothreitol
REact <sup>®</sup> 6:	50 mM Tris-HCl (pH 7.4) 6 mM MgCl <sub>2</sub> 50 mM KCl 50 mM NaCl		

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## Complete REact<sup>®</sup> Buffer Set, continued

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### Separate DTT

REact<sup>®</sup> buffers do NOT contain the labile component dithiothreitol (DTT). DTT is required in the reaction mixture of *EcoR* II and *Nde* II and must be added to a final concentration of 1 mM as stated on the enzyme product profile.

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### No BSA

REact<sup>®</sup> buffers do NOT contain bovine serum albumin (BSA). BSA is not necessary in the reaction buffers for Invitrogen restriction endonucleases. Each REact<sup>®</sup> buffer is supplied as the 10X concentrate and should be diluted, 1:10 (1 part REact<sup>®</sup> buffer + 9 parts other components = 10 parts final reaction volume).

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### Quality Control

#### Endonuclease Assay:

Cleavage by an appropriate restriction endonuclease only at recognition site at 100-fold excess digest of substrate DNA.

#### Exonuclease Assay:

Using 1 pmol radiolabeled termini in a 50- $\mu$ l reaction and up to 20 units of an appropriate restriction endonuclease for one hour the following results were observed:

1 unit of enzyme removed 0.3% label from 5 ends.

1 unit of enzyme removed 0.3% label from 3 ends.

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