

### Purification kits, plasmid, NucleoBond® Xtra



For High copy-number plasmids from *E. coli*.  
 Low copy-number plasmids from *E. coli*.  
 Increased buffer volumes required.

- The new generation of anion-exchangers - ultra-fast plasmid preps with high yields
- 60% time saving: Midi prep less than 28min, Maxi prep less than 34min
- Increases yield of transfection-grade plasmid DNA up to 100%, typical yield Midi 250µg, Maxi 1,000µg
- Produces highest purity of plasmid DNA due to anion-exchange technology
- Column filter included for lysate clarification: high filter flow rates, parallel clearing of lysates and loading onto the column

#### NucleoBond Xtra columns

- Improved silica material with higher DNA binding capacity creates higher yields
- Optimised buffer compositions increase efficiency of alkaline lysis and flow rate, produces more DNA in shorter processing time

NucleoBond® Xtra is a new generation of anion exchangers featuring fast filtration, high binding capacity and high flow rate. Typical yields of  $\geq 250\mu\text{g}$  (Midi) or  $\geq 1,000\mu\text{g}$  (Maxi) of ultra-pure plasmid DNA can be obtained in about half the time compared with other Midi or Maxi kits based on anion-exchange chromatography. The Midi/Maxi Plus options include NucleoBond® Finalizer/Finalizer Large to speed up DNA precipitation for further time saving. NucleoBond® Xtra Midi and Maxi kits contain enlarged columns creating shorter silica resin beds. This enables faster flow of lysate and buffers through the columns. Specially designed column filters are included for convenient and time saving clarification of bacterial lysates. The column filters are inserted in the columns and allow parallel clarification of bacterial lysate and loading onto the column. The silica material is based on the proven NucleoBond® anion-exchanger group MAE, methylaminoethanol (patented technology). Optimised buffer compositions additionally lead to improved alkaline lysis and increased column flow rates.

Bacteria are harvested from an overnight culture and lysed by an optimised alkaline lysis procedure. The bacterial lysate is cleared and loaded onto the equilibrated column in one step (plasmid DNA binds to the anion-exchange resin). The first washing step using equilibration buffer is performed with inserted column filter to wash out residual lysate from the filter and obtain maximum recovery of DNA. After subsequent washing, the purified plasmid DNA is eluted in a high-salt buffer and precipitated with isopropanol. Precipitation can be performed by centrifugation (NucleoBond® Xtra Midi or Maxi) or by using the NucleoBond® Finalizer/Finalizer Large included in the NucleoBond® Xtra Midi Plus/Maxi Plus kits to reduce the total prep time to about 28min (Midi Plus) or 34min (Maxi Plus).

Kit components:

#### NucleoBond® Xtra Midi:

Midi columns with inserted NucleoBond® Xtra filter columns, buffers, RNase A.

#### NucleoBond® Xtra Midi Plus:

Midi columns with inserted NucleoBond® Xtra filter columns, NucleoBond® Finalizer, buffers, RNase A.

#### NucleoBond® Xtra Maxi:

Maxi columns with inserted NucleoBond® Xtra filter columns, buffers, RNase A.

#### NucleoBond® Xtra Maxi Plus:

Maxi columns with inserted NucleoBond® Xtra filter columns, NucleoBond® Finalizer Large, buffers, RNase A.

For further information on this product contact Customer Services, details can be found on the inside front cover.

#### Technical Specification - Specific

	NucleoBond Xtra Midi		NucleoBond Xtra Maxi	
Format	Midi gravity flow columns		Maxi gravity flow columns	
Sample size, mL	<200 (high copy) <400 (low copy)		<600 (high copy) <1,200 (low copy)	
Typical yield	250µg		1,000µg	
Isopropanol precipitation	Xtra Midi	Xtra Midi Plus	Xtra Maxi	Xtra Maxi Plus
	Centrifugation	NucleoBond finaliser	Centrifugation	NucleoBond finaliser large
Time, preparation	68min/4 preps	28min/4 preps	80min/4 preps	34min/4 preps

#### Technical Specification - General

Technology	Anion-exchange chromatography
Lysate clarification	Column filters (included)
Vector	<300kbp
A <sub>260/280</sub>	1.80 to 1.95

LE

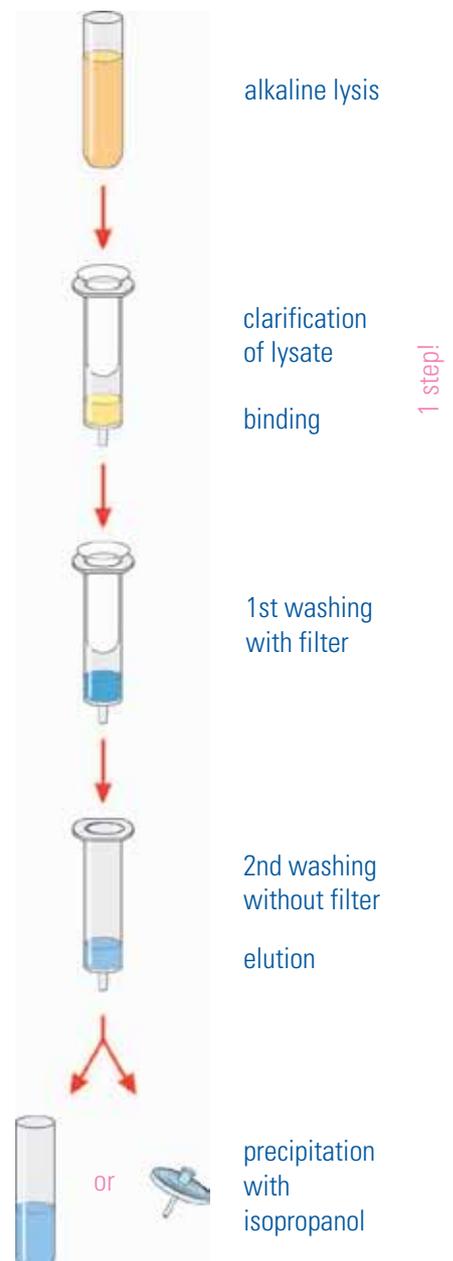


New column filter  
Fast filtration  
Improved silica material



High binding capacity  
Low silica resin bed  
High flow rate

### NucleoBond® Xtra procedure



entry continued