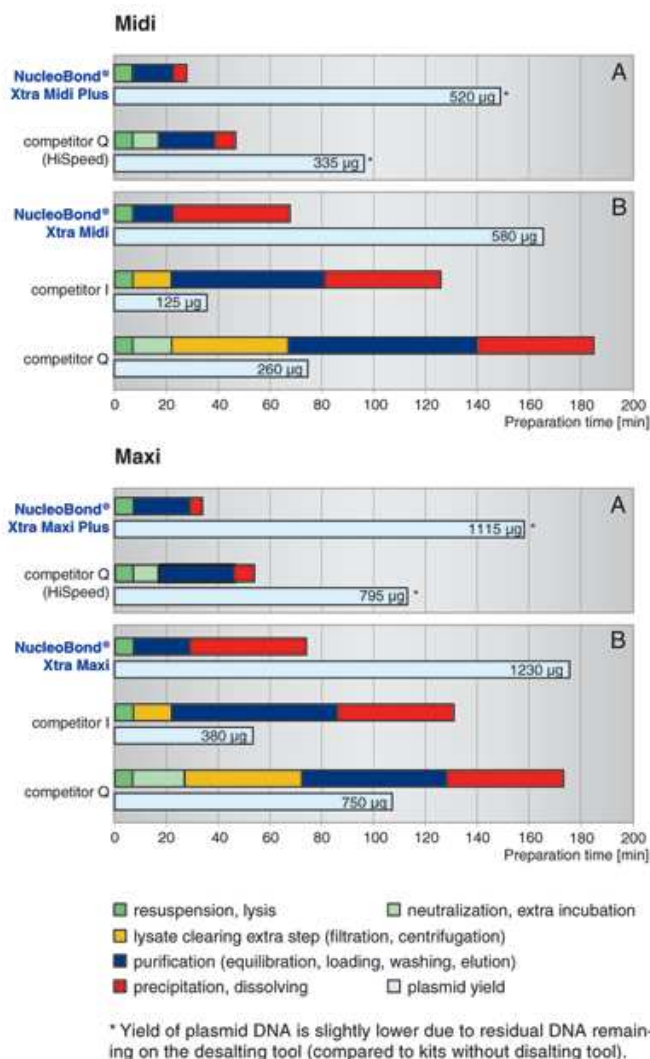


## NucleoBond® Xtra Midi/Maxi – Double DNA yield in half of the time

A new generation of anion exchanger by Macherey Nagel (MN) employs the patented anion-exchange chromatography with advanced features to enhance the DNA yield but reduce the preparation time compared with other Midi and Maxi kits based on anion-exchange chromatography (Fig. 1).

Fig. 1: Higher plasmid yield in less time – comparison to competitor anion-exchange based kits  
Plasmid DNA was isolated following each manufacturer's protocol using the maximum culture volume with high plasmid content. Yield of plasmid DNA was determined after DNA precipitation.  
Comparison: A) Kits including desalting tool, B) Kits without desalting tool.  
NucleoBond Xtra: Up to 60% time saving and up to 100% higher yields compared to competitor products.



### Reduced preparation time

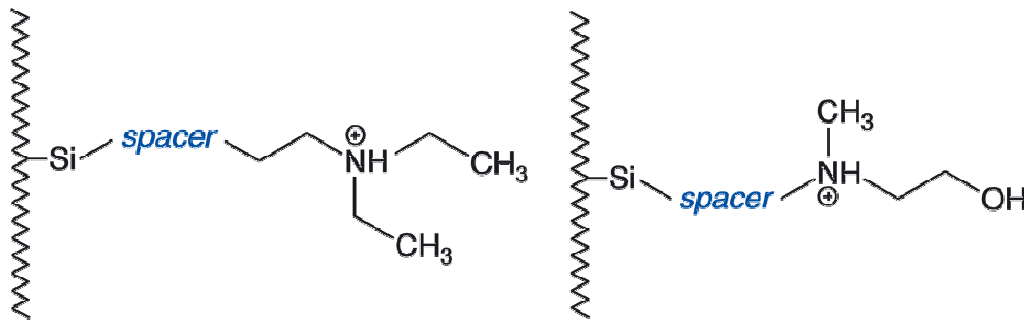
NucleoBond Xtra Midi and Maxi kits contain enlarged columns which lead to lower silica resin beds. This in turn enables faster flow of lysate and buffers through the

columns. Specially designed column filters are included for convenient and time-saving clarification of bacterial lysates after the alkaline lysis. The column filters are supplied inserted in the NucleoBond Xtra columns and allow parallel clarification of bacterial lysate and loading onto the column. Their large, structured surface leads to high filter flow rates and minimized risk of clogging.

### Extraordinary high yield

Unlike the materials used in other top brands, MN employed the improved silica material with greater DNA binding capacity is based on the proven NucleoBond anion-exchanger group MAE, methylaminoethanol (patented technology) (Fig. 2). Optimized buffer compositions additionally lead to improved alkaline lysis and increased column flow rates.

Fig. 2: The chemical structure of anion-exchanger group from (left) Brand Q and from (Right) MN: less methyl group in MN's anion-exchanger allows easier access by the negatively charged phosphate group in nucleic acids.

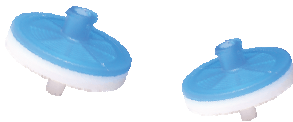


### High DNA quality

Other than efficiency washing to remove unwanted salts and biomolecules by optimized washing buffer, shearing by traditional centrifugation (even for the large construct) is avoided with using gravity flow columns. A clean and complete plasmid product can be obtained.

### Speed up the elution process by Nucleobond® Finalizer in NucleoBond® Xtra Plus

Faster elution steps is allowed with using Nucleobond® Finalizer provided in NucleoBond Xtra® Plus. No additional time for centrifugation and air-dry steps are required.



### More about Nucleobond® Xtra and Xtra Plus:

[1\) Specifications, principle and procedures and application data](#)