

Cleanera Endotoxin Removal Buffer Kit

Buffer system for cleaning various chromatography purification columns

Obtain endotoxin free protein preps from your used columns. Inefficient column cleaning during routine protein purification often leads to the buildup of endotoxin and other impurities in the column. **Cleanera Endotoxin Removal Buffer Kit** rapidly restores your columns freeing them of endotoxin and other unwanted impurities.

Advantages

- Works on various types of columns: Ni-NTA, CIEX, AIEX, SEC, Protein A/G/L
- Gentle buffer formulations that are compatible with all column matrices
- Four sequential steps to regenerate column performance

Endotoxins are polysaccharides from bacteria cell walls and may be introduced to the column through several means, such as non-sterile techniques, inefficient washing, and improper storage. Endotoxin contamination can adversely affect the function of proteins. They are known to reversibly stick to proteins and co-purify with them on various columns such as Protein A, Protein G, and ion-exchange. Even low levels of endotoxins can have significant biological effects, especially in cell culture or *in vivo* studies. It is essential to control and monitor endotoxin levels to ensure reliability of functional data. Cleanera Endotoxin Removal Buffer Kit is specially formulated to gently remove common contaminants in four sequential steps without damaging the column matrix or ligands.

Package Contents

Store at room temperature

- Buffer A (50 ml)
- Buffer B (50 mL)
- Buffer C (50 mL)
- Buffer D (50 mL)

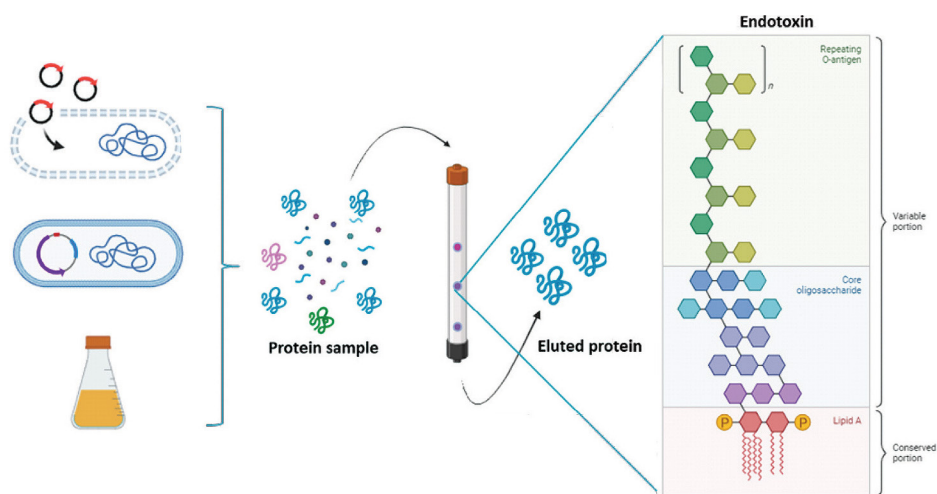


Figure 1. Protein purification workflow and introduction of endotoxins into the column.



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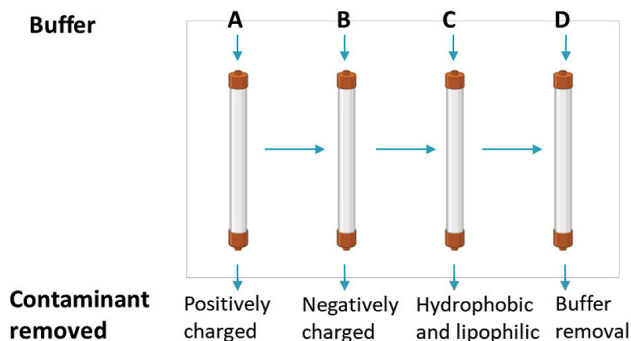


Figure 2. Sequential removal of impurities from the column using the Cleanera Endotoxin removal buffer kit.

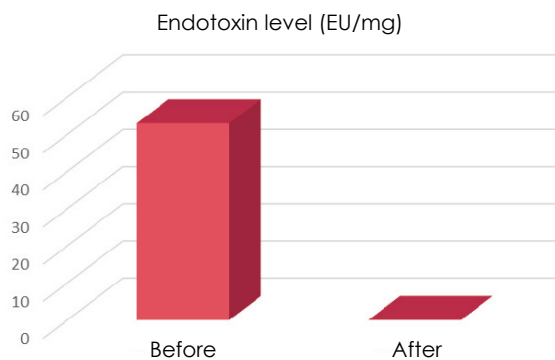


Figure 4. Endotoxin levels measured from the flowthrough from a Ni-NTA column before and after cleaning with the Cleanera Endotoxin Removal Buffer Kit. Endotoxin levels measured using Endosafe® Nexgen PTS cartridge.

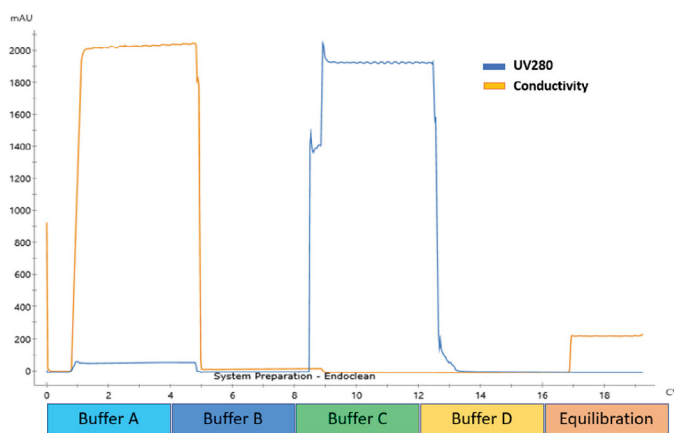


Figure 3. Column cleaning run on an AKTA system (1 mL HiTrap Protein A column). Four column volumes of each of the 4 buffers (Buffer A, B, C and D) were run through the column, followed by equilibration in the running buffer. UV absorbance at 280 nM and conductivity was monitored throughout the run, and is shown in the figure. Complete removal of each buffer can be seen by following the conductivity profile. Buffer C has high UV280 absorbance.

Sample	Flowthrough (water)	
	Before (from dirty column)	After (post cleaning with Cleanera buffer kit)
Endotoxin level (EU/mg)	53	<0.05 (undetectable)

Ordering Information

Catalog Number	Product	Size
K-02102-C50	Cleanera Endotoxin Removal Buffer Kit	4 x 50 mL



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Cleanera-Endotoxin-Removal

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