What is claimed is:

1. A method for removing a non-lipid enveloped virus from a protein-containing solution comprising:

applying the solution to a cation exchange resin at a pH ~~higher than~~of 1.6 pH units or more above the isoelectric point of the protein; and

washing the cation exchange resin with a wash buffer to form an eluate, said wash buffer having a pH that is ~~equal to or lower than~~below the pH of the solution applied to the cation exchange resin, wherein the protein has a molecular mass of at least about 150 kilodaltons, and whereby the non-lipid enveloped virus is removed from the protein-containing solution in the eluate.

2. The method of claim 1 wherein the solution applied to the cation exchange resin is at least ~~1 pH unit~~2.0 pH units above the isoelectric point of the protein.

3. A method for removing a non-lipid enveloped virus from a protein-containing solution comprising:

applying the solution to a cation exchange resin,

washing the cation exchange resin with a first wash buffer at a pH ~~higher than~~above the pH of the solution applied to the cation exchange resin; and

washing the cation exchange resin with a second wash buffer to form an eluate, said first ~~eluant~~ eluate having a pH that is equal to or ~~lower than~~below the first wash buffer, wherein the protein in the solution has a molecular mass of at least about 150 kilodaltons, and whereby the non-lipid enveloped virus is removed from the protein-containing solution in the eluate.

4. The method of claim 3 wherein the pH of the first wash buffer is at least 1 pH unit above the isoelectric point of the protein applied to the cation exchange resin.

5. A method for removing a non-lipid enveloped virus from a protein-containing solution comprising:

applying the solution to a cation exchange resin at a pH ~~higher than~~above the isoelectric point of the protein; washing the cation exchange resin with a first wash buffer at a pH ~~higher than~~above the isoelectric point of the protein applied to the cation exchange resin; and

washing the cation exchange resin with a second wash buffer to form an eluate, said ~~first eluant~~eluate having a pH that is equal to or ~~lower than~~below the first wash buffer, wherein the protein in the solution

has a molecular mass of at least about 150 kilodaltons, and whereby the non-lipid enveloped virus is removed from the protein-containing solution.

6. The method of claim 5 wherein the solution applied to the cation exchange resin is at least 1 pH unit above the isoelectric point of the protein.

7. The method of claim 5 wherein the pH of the first wash buffer is at least 1 pH unit above the pH of the solution applied to the cation exchange resin.

8. The method of claims ~~2,~~ 4, 6 or 7 wherein the pH of the solution applied to the cation exchange resin is ~~greater than~~above pH 7.0.

9. The method of any of claims 1 - 8 wherein the cation exchange resin has a negatively charged group selected from the group consisting of carboxymethyl (CM), sulphoalkyl ~~(SP, SE)~~, sulfated esters of cellulose, heparin and methylsulfonate (S).

10. The method of any of claims 1-9 wherein the protein is a blood coagulation protein.

11. The method of claim 10 wherein the blood coagulation protein is selected from the group consisting of Factor VIII and von Willebrand factor.

12. A method for removing a non-lipid enveloped virus from a von Willebrand factor (VWF)-containing solution comprising:

applying the solution to a cation exchange resin at a pH ~~higher than~~of 1.6 pH units or more above the isoelectric point of the protein; and

washing the cation exchange resin with a first wash buffer to form an eluate, said first wash buffer having a pH that is equal to or ~~lower than~~below the pH of the solution applied to the cation exchange resin, whereby the non-lipid enveloped virus is removed from the VWF-containing solution.

13. The method of claim 3, wherein the protein is von Willebrand factor.~~A method for removing a non-lipid enveloped virus from a VWF-containing solution comprising:~~

~~applying the solution to a cation exchange resin;~~

~~washing the cation exchange resin with a first wash buffer at a pH higher than the pH of the solution applied to the cation exchange resin; and~~

~~washing the cation exchange resin with a second wash buffer to form an eluate, said first eluant having a pH that is equal to or lower than the first wash buffer, whereby the non-lipid enveloped virus is removed from the VWF-containing solution.~~

14. The method of claim 5, wherein the protein is von Willebrand factor. ~~A method for removing a non-lipid enveloped virus from a VWF-containing solution comprising:~~

~~applying the solution to a cation exchange resin at a pH higher than the isoelectric point of the protein; and~~

~~washing the cation exchange resin with a first wash buffer at a pH higher than the isoelectric point of the protein applied to the cation exchange resin; and~~

~~washing the cation exchange resin with a second wash buffer to form an eluate, said first eluant having a pH that is equal to or lower than the first wash buffer, whereby the non-lipid enveloped virus is removed from the VWF-containing solution.~~

15. A method for removing a non-lipid enveloped virus from a protein-containing solution comprising:

applying the solution to a cation exchange resin, wherein the pH of the solution is 2.0 pH units or more above the isoelectric point of a protein in the protein-containing solution; and

washing the cation exchange resin with a wash buffer to form an eluate, said wash buffer having a pH that is equal to or below the pH of the solution applied to the cation exchange resin, wherein the protein has a molecular mass of at least about 150 kilodaltons, and whereby the non-lipid enveloped virus is removed from the protein-containing solution.

16. The method of claim 15, wherein the pH of the protein containing-solution and the wash buffer is about 9.0.

17. The method of claim 15, wherein the protein is von Willebrand factor.

18. The method of claim 1, wherein the pH of the wash buffer is above the isoelectric point of the protein applied to the cation exchange resin.