WHAT IS CLAIMED IS:

1. A method of improving the filtration capacity of a virus filter during protein purification, comprising subjecting a composition comprising a protein to be purified to a cation exchange step and an endotoxin removal step, simultaneously or in either order, prior to passing through said virus filter.

2. The method of claim 1 wherein the pore size of the virus filter is between 15 and 100 nm diameter.

3. The method of claim 2 wherein the pore size of the virus filter is between 15 and 30 nm diameter.

4. The method of claim 3 wherein the pore size of the virus filter is 20 nm.

5. The method of claim 3 or claim 4 wherein the virus to be removed is a parvovirus.

6. The method of claim 5 wherein the diameter of the parvovirus is between 18 and 26 nm.

~~7. The method of claim 1 wherein the protein is an antibody or an antibody fragment.~~

~~8. The method of claim 7 wherein the protein is a recombinant antibody or antibody fragment.~~

~~9. The method of claim 8 wherein the recombinant antibody or antibody fragment is produced in a mammalian host cell.~~

~~10. The method of claim 9 wherein the mammalian host cell is a Chinese Hamster Ovary (CHO) cell.~~

~~11. The method of claim 1 wherein the composition comprising the protein to be purified is first subjected to the cation exchange step followed by the endotoxin removal step, prior to virus filtration.~~

~~12. The method of claim 1 wherein the composition comprising the protein to be purified is first subjected to the endotoxin removal step followed by the cation exchange step, prior to virus filtration.~~

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13. The method of claim 1 wherein the composition comprising the protein to be purified is subjected to the endotoxin removal step and the cation exchange step simultaneously, prior to virus filtration.

14. The method of claim 11 wherein said endotoxin removal step is directly followed by virus filtration.

15. The method of claim 12 wherein said cation exchange step is directly followed by virus filtration.

16. The method of claim 13 wherein said simultaneous endotoxin removal and cation exchange step are directly followed by virus filtration.

17. The method of claim 1 wherein virus filtration is performed at a pH between 4 and 10.

18. The method of claim 1 wherein the protein concentration in said composition is 1 - 40 g/L.

19. The method claim 8 wherein said antibody is to one or more antigens selected from the group consisting of HER1 (EGFR), HER2, HER3, HER4, VEGF, CD20, CD22, CD11a, CD11b, CD11c, CD18, an ICAM, VLA-4, VCAM, IL-17A and/or F, IgE, DR5, CD40, Apo2L/TRAIL, EGFL7, NRP1, mitogen activated protein kinase (MAPK), and Factor D.

20. The method of claim 8 wherein the antibody is selected from the group consisting of anti-estrogen receptor antibody, anti-progesterone receptor antibody, anti-p53 antibody, anti-cathepsin D antibody, anti-Bcl-2 antibody, anti-E-cadherin antibody, anti-CA125 antibody, anti-CA15-3 antibody, anti-CA19-9 antibody, anti-c-erbB-2 antibody, anti-P-glycoprotein antibody, anti-CEA antibody, anti-retinoblastoma protein antibody, anti-ras oncoprotein antibody, anti-Lewis X antibody, anti-Ki-67 antibody, anti-PCNA antibody, anti-CD3 antibody, anti-CD4 antibody, anti-CD5 antibody, anti-CD7 antibody, anti-CD8 antibody, anti-CD9/p24 antibody, anti-CD10 antibody, anti-CD11c antibody, anti-CD13 antibody, anti-CD14 antibody, anti-CD15 antibody, anti-CD19 antibody, anti-CD23 antibody, anti-CD30 antibody, anti-CD31 antibody, anti-CD33 antibody, anti-CD34 antibody, anti-CD35 antibody, anti-CD38 antibody, anti-CD41 antibody, anti-LCA/CD45 antibody, anti-CD45RO antibody, anti-CD45RA antibody, anti-CD39 antibody, anti-CD100 antibody, anti-CD95/Fas antibody, anti-CD99 antibody, anti-CD106 antibody, anti-ubiquitin antibody, anti-CD71 antibody, anti-c-myc antibody, anti-cytokeratins antibody, anti-vimentins antibody, anti-HPV-proteins antibody, anti-kappa light chains antibody, anti-lambda light chains antibody, anti-melanosomes antibody, anti-prostate specific antigen antibody, anti-S-100 antibody, anti-tau antigen antibody, anti-fibrin antibody, anti-keratins antibody and anti-Tn-antigen antibody.

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