CLAIMS:

1. A method for microbial bioburden reduction of a chromatography matrix, comprising contacting the chromatography matrix with a composition, wherein said composition consists of:
   (a) 0.4 M to 0.7 M acetic acid; or
   (b) 0.4 M to 0.7 M acetic acid and benzyl alcohol; or
   (c) 0.1 M to 0.5 M acetic acid; or
   (d) 0.1 M acetic acid and 20% ethanol; or
   (e) 0.1 M to 0.5 M acetic acid and 1% benzyl alcohol; or
   (f) 0.5 M to 1.0 M acetic acid and 1% to 2% benzyl alcohol

wherein the contacting step is performed for at least 1 hour, wherein the method does not comprise a step of contacting the chromatography matrix with a sodium hydroxide solution.

2. The method of claim 1, wherein:
   (a) the contacting step is performed for 1 hour to 4 hours; or
   (b) the contacting step is performed for at least 4 hours.

3. The method of claim 1, wherein an amount of spore forming bacteria is reduced by at least 3 $\log_{10}$, an amount of gram positive bacteria is reduced by at least 5 $\log_{10}$, and/or an amount of gram negative bacteria is reduced by at least 5 $\log_{10}$ in the chromatography matrix.

4. The method of claim 3, wherein the contacting step results in a reduction in the amount of one or more of spore forming bacteria, gram positive bacteria, and gram negative bacteria, in the chromatography matrix, to below the limit of detection as determined by an assay selected from the group consisting of (1) a biofiltration assay, (2) microscopic bacterial staining, (3) IR/FTIR spectroscopy method, (4) a sterility test, and (5) a bacterial identification test, optionally wherein the spore forming bacteria are *Bacillus pseudofirmus,*the gram positive bacteria are *Microbacterium* spp., and the gram negative bacteria are *Stenotrophomonas maltophilia.*

5. The method of any of claims 1-4, wherein:
   (a) the composition has pH between 2 and 3; and/or

(b) said chromatography matrix is selected from the group consisting of

MabSelect™, MabSelect™ Xtra, MabSelect™SuRe, MabSelect™SuRe pcc, MabSelect™ SuRe LX, MabCapture™A, nProtein A Sepharose 4 Fast Flow, Protein A Sepharose 4 Fast Flow, Protein A Mag Sepharose, Protein A Sepharose CL-4B, rmp Protein A Sepharose Fast Flow, rProtein A Sepharose 4 Fast Flow, Capto™ L, ProSep™-A, ProSep Ultra Plus, AbSolute™, CaptivA™ PriMab™, Protein A Diamond, Eshmuno™A, Toyopearl™ AF-rProtein A, Amsphere™ Protein A, KanCapA™, Protein G Mag Sepharose Xtra, and Protein G Sepharose 4 Fast Flow.

6. The method of any one of claims 1 to 5, wherein the contacting step is conducted at a temperature between 15˚C and 30 ˚C, or between 20 ˚C and 25 ˚C.

7. A method for reducing microbial load before applying a composition comprising a pharmaceutical agent for purification comprising
providing a chromatography matrix;
performing the method of claim 1; and
applying the composition comprising the pharmaceutical agent to the chromatography matrix.