IonClear BigBeads are a mixed bed resin with positive and negative charges on polystyrene beads. The beads have a large diameter, 500 – 1100 microns so that the beads can be removed using a column with large bore bed supports or using a sintered glass filter. This resin is ideal for the removal of contamination ions from non-ionic reagents such as formamide, urea, and monomeric acrylamide. Ampholines can also be removed from proteins after preparative isoelectric focusing. Efficiency of removal of ions can be monitored by a decrease in conductivity with treatment. pH changes can also be indicative of efficiency of deionization. The effect of temperature will be negligible, so deionization can be performed in a cold room, if desired.

At Sterogene Bioseparations, we recommend using a chromatography column for smaller volumes, since the geometry of the column facilitates rapid removal. In batch mode, monitoring conductivity, or pH, over time is recommended. Due to the tight binding of these beads to ions, regeneration of the beads is inefficient, and replacing spent beads with fresh ones is the better option.