

Figure S1. Representative DSC thermogram of the IgG1 mAb. DSC thermogram of the IgG1 mAb (1 mg/mL) in a 20 mM citrate phosphate buffer, pH 4.0, no NaCl. T_{m1} , T_{m2} , and T_m are labeled and correspond to the deconvoluted peaks as indicated in figure.

Figure S2. Multiple instruments radar chart array analysis for accelerated stress study with IgG1 mAb. IgG1 mAb solutions containing 20 mM citrate phosphate buffer (pH 4.0) and varying NaCl concentrations were stressed by shaking side-to-side at 300 RPM over time (n=3). Samples were evaluated by a combination of SEC, RMM and MFI. The Y-axis represents the amount of time the samples was stressed (in minutes), the X-axis represents NaCl concentration. Refer to Figure 6 for an explanation of units and scales for the individual radar charts for each analytical method (SEC, RMM and MFI data).

Figure S3. Radar chart array analysis of subvisible particle concentration and size for particles created by stirring. IgG1 mAb solutions of varying pH values and NaCl concentrations were exposed to stirring with a Teflon bar for up to 4 h (n=3). The Y-axis represents the amount of time the formulations were stressed (in minutes), the X-axis represents NaCl concentrations, and each radar chart panel (left, middle, right) signifies a change in pH. Refer to Figure 1 for an explanation of particle concentration and size scales shown in individual radar charts.

Figure S4. Radar chart array analysis of subvisible particle concentration and size for particles created by shaking. IgG1 mAb solutions of varying pH values and NaCl concentrations were exposed to side-to-side shaking at 300RPM for up to 4 h (n=3). The Y-axis

represents the amount of time the formulations were stressed (in minutes), the X-axis represents NaCl concentrations, and each radar chart panel (left, middle, right) signifies a change in pH. Refer to Figure 1 for an explanation of particle concentration and size scales shown in individual radar charts.