**Supplementary Figure 1.** Schematic diagram of LC-MS.

**Supplementary Figure 2.** MS spectrum (A-D) and deconvolution (E-H) results of commercial recombinant TNF dissolved in several concentrations of Tris-HCl.

**Supplementary Figure 3.** MS spectrum (A-F) and deconvolution (G-L) results of commercial recombinant TNF dissolved in PBS with 0, 10, 20, 30, 40, or 50% glycerol.