Summary and Intended Use
The use of controls to monitor the analytical performance and reliability of test methods is an essential component of good laboratory practice. The Cytokine Panel 1 (human) Control Pack consists of 3 levels of controls, each containing known concentrations of all human cytokines that are detected by the Cytokine Panel 1 (human) Kit. Cytokine Panel 1 (human) Controls 1, 2, and 3 are prepared by spiking recombinant calibrators into a non-human serum matrix. The controls are supplied as lyophilized powder.

Storage and Handling
To maximize the consistency of measured values across vials, the controls must be stored at the temperature recommended above. Once reconstituted in 250 µL of Diluent 43, the controls must be stored frozen at ≤-70°C. Reconstituted controls can go through 3 freeze–thaw cycles without significantly changing analytes levels. Discard unused reconstituted material after the third freeze–thaw cycle.

To use, first reconstitute each vial of Cytokine Panel 1 (human) controls in 250 µL of Diluent 43, and then dilute to match the sample dilution (2-fold is the recommended sample dilution for this kit). Add diluted control solutions directly to the MSD Cytokine Panel 1 (human) plate, and assay as unknown samples. Discard unused diluted control material.

Safety
Use safe laboratory practices and wear gloves, safety glasses, and lab coats when handling controls. Handle and dispose of all hazardous samples properly in accordance with local, state, and federal guidelines. Additional product-specific safety information is available in the safety data sheet, which can be obtained from MSD Customer Service.

Assignment of Control Values
The controls are provided to assess reproducibility of assay performance, and precision CVs are expected to be less than 25%. The certificate of analysis contains the concentrations of the controls measured at MSD across three lots. Even with good laboratory practices, site-to-site differences may occur; therefore, to establish accuracy specifications, it is recommended that each lab should establish its own nominal values and acceptance range for the controls concentrations.