Detection and identification of a virus surrogate by using a macroIMS system-generated size spectrum. The macroIMS system analyzes the MS2 bacteriophage intact, without the protein extraction or digestion that is customary with mass spectrometry based techniques.

**Sample Description:** Virus that infects only a specific strain of E.coli. $\sim 10^6$ virus particle/mL

**Buffer:** Ammonium acetate, 20 mM