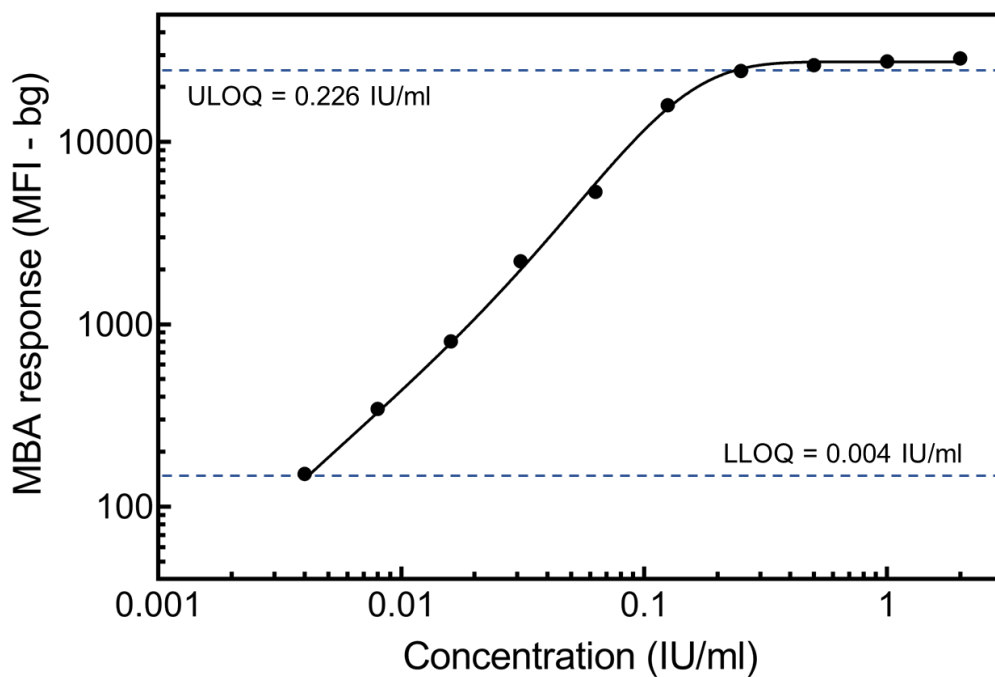


**Supplementary Figure 1.** Standard curve with the diphtheria toxoid multiplex bead assay (MBA) and WHO International Standard for Diphtheria Antitoxin (10/262; 2 IU/ml; National Institute for Biological Standards and Control, Potters Bar, Hertfordshire, United Kingdom). Lower limit of quantitation (LLOQ) and upper limit of quantitation were calculated based on the MBA response on the y-axis in median fluorescent intensity minus background (MFI-bg) and concentration of the standard serum in international units per milliliter (IU/ml).



**Supplementary Figure 2.** Receiver Operating Characteristic (ROC) analysis of the sensitivity and specificity of the diphtheria toxoid multiplex bead assay (MBA) developed at the Centers for Disease Control and Prevention (CDC), USA compared to a reference Vero cell toxin neutralization test (TNT) at Public Health England, UK. Area (A) under the curve was calculated.

