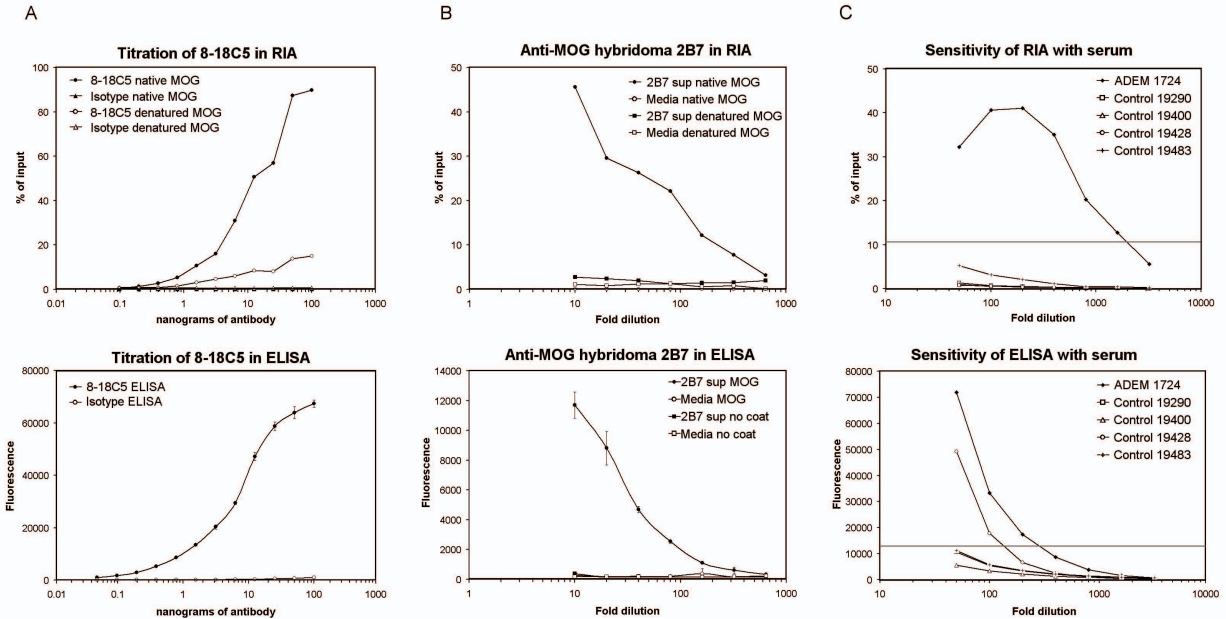
Supplementary Figure 1.



Supplementary Figure legends:

Supplementary Figure 1. Comparison of RIA and ELISA for detection of monoclonal versus polyclonal antibodies to MOG.

(A) The MOG mAb 8-18C5 immunoprecipitated folded MOG more effectively than unfolded MOG tetramer. A serial dilution of 8-18C5 (0.1-100 ng of input antibody) was used to precipitate folded or unfolded MOG tetramers (upper panel) or to detect immobilized MOG by ELISA (lower panel). Similar titration curves were obtained with the tetramer RIA and the ELISA.

(B) A newly generated MOG mAb (2B7) only binds to folded but not unfolded MOG tetramer. The 2B7 antibody was assayed in the RIA and ELISA as described above. Detection of binding in the ELISA by this conformation-sensitive antibody proves that the MOG protein expressed in *E. coli* was folded.

(C) Comparison of tetramer RIA and ELISA methods for detection of antibodies present in human serum. MOG antibodies were detected in the ADEM 1724 sample by both methods, but the tetramer RIA was substantially more sensitive than the ELISA. Importantly, control samples showed a much narrower range of background binding levels in the RIA compared to the ELISA. High levels of background binding by some control samples interfered with sensitive detection of autoantibodies in polyclonal populations by the ELISA. The threshold shown for each assay is four standard deviations above the mean of all control sera tested.