

### Supplementary Fig. 1.

Quantitative immunofluroscence assay shows comparable levels of antibodies against salivary gland cell line SCA9-15. Reactivity of sera with fixed and permeabilised SCA9-15 cells was analysed in a 96-well plate in duplicates. Images were acquired on Odyssey Classic instrument and analysed by ImageStudio software. The IR700 channel (red) shows total cell staining with CellTag700 and was used for the normalisation for cell number. The IR800 channel (green) shows antibody reactivity detected by IR800 dye labeled goat anti-mouse IgG.

**B.** The relative intensity of staining was quantitated as a ratio of 800:700. Each open circle represents mean of duplicates for each serum sample. Although higher trend in reactivity was seen in mice immunised with the CC domain containing proteins, the differences were statistically not significant.



RING & BBOX



# **Coiled Coil**





Supplementary Fig. 2. Sera from Ro52 domain immunised mice show mainly cytoplasmic staining. Representative images of antibody staining of fixed and permeabilised SCA9-15 cells grown on coverslips.

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#### Supplementary Figure 3.

Lack of intermolecular B cell epitope spreading in mice immunised with mRo52 fragments. Sera obtained at the time of euthanasia (~2 month post-immunization) were pooled and analysed for their ability to immunoprecipitate <sup>35</sup>S-Met labelled mouse Ro60 and mouse La. 10µl of pooled sera were used for IP. Positive control was a pool of serum samples from 4 lupus patients. The solid line indicates 2X CPM obtained for anti-MBP. None of the mRo52 fragment immunised groups had CPM values above this cut-off.



#### Supplementary Fig. 4.

Comparison of amino acid sequences between CC regions of human and mouse Ro52. The human Ro52 CC region is within amino acids 128-238, whereas the mouse Ro52 CC region is in amino acids 188-250. The mouse 188-250 region has a strong homology with the corresponding region on human Ro52.



#### Supplementary Fig. 5.

Schematic presentation of possible mechanisms involved in the induction of salivary gland disease in mice immunised with CC domain of Ro52. A indicates acini and D indicates ducts.

