



S1 Fig. PRM binding to aggrecan. A 96-well polypropylene microtiter plate was coated overnight with 5 $\mu\text{g/ml}$ aggrecan or BSA in 0.1 M NaHCO_3 and 0.5 M NaCl , pH8.5. After blocking with 1% BSA and 0.1% Tween 20 in TBS, a dilution series of fluorescein-labeled PRM or fluorescein in the blocking buffer was added and incubated for 90 min. Horseradish peroxidase (HRP)-conjugated anti-fluorescein (cat no. NEF710001EA, PerkinElmer) was then added and incubated for 90 min. Color development was performed using the SureBlue Reserve TMB Substrate (cat no. 53-00-01, KPL) according to the manufacturer's instructions, and absorbance was measured at 450 nm (SH-9000Lab, Corona Electric). Absorbance values were corrected for the background without fluorescein molecules.