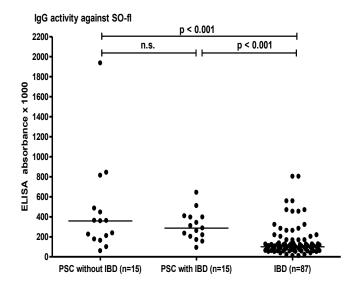
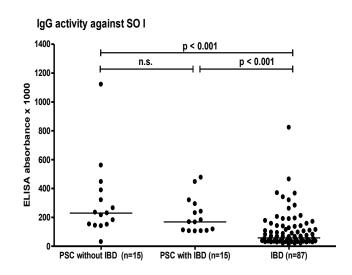
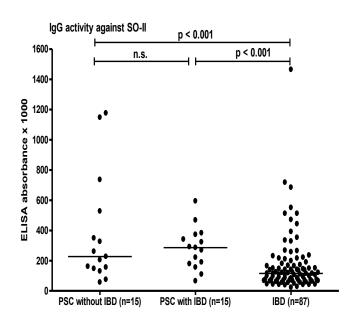
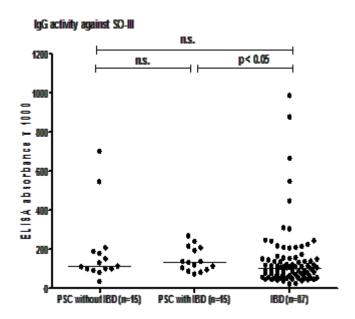
## Additional file 5









Activity of IgG-antibodies against the four SO-proteins in sera from untreated PSC-patients without and with IBD as well as in patients with pure IBD as determined by ELISA. Individual values ( $\bullet$ ) and median (—) are given. p < 0.05 (with post-hoc tests Tukey and Bonferroni).