



**Fig. S2. Circulating B-cell subsets and immunoglobulins in healthy individuals and in patients with moderate-to-severe psoriasis before therapy (pre).** (A) Relative (%) and absolute numbers (cells/ml) of total B cells. (B) transitional B cells (trB), naive mature B cells (NM), memory B cells (M), plasma cells (PC), long-lived PC and plasma blasts (PB) (%). (C) Serum IgM, IgG, IgE and IgA levels (mg/dl or IU/l). \* $p \leq 0.05$ , \*\* $p \leq 0.01$ , \*\*\* $p \leq 0.001$ .

Percentages of total B cells were significantly lower and their absolute numbers moderately decreased in patients with moderate-to-severe psoriasis compared with healthy individuals (controls  $8.2 \pm 3.9\%$  vs. psoriasis (pre)  $5.8 \pm 4.6\%$ ,  $p = 0.0258$ ; controls  $170.7 \pm 111.6$  cells/ml vs. psoriasis (pre)  $113.8 \pm 141.9$  cells/ml,  $p = 0.092$ ). Further analysis showed elevated percentages of trB (controls  $3.1 \pm 2.1\%$  vs. psoriasis (pre)  $6.0 \pm 3.7\%$ ,  $p = 0.0002$ ). While naive mature B cells (NM) showed equal levels (controls  $47.2 \pm 15.7\%$  vs. psoriasis (pre)  $49.8 \pm 11.2\%$ ;  $p = 0.421$ ), memory B cells (M) (controls  $37.8 \pm 14.1\%$  vs. psoriasis (pre)  $27.7 \pm 9.1\%$ ,  $p = 0.0006$ ) and total plasma cells (PC) were significantly lower in patients with psoriasis (controls  $0.073 \pm 0.041\%$  vs. psoriasis (pre)  $0.050 \pm 0.047\%$ ,  $p = 0.0034$ ). Investigation of PC in detail revealed that long-lived PC did not differ significantly between both groups (controls  $30.1 \pm 16.3\%$  vs. psoriasis (pre)  $33.2 \pm 14.9\%$ ,  $p = 0.41$ ). However, PB were significantly elevated in individuals with psoriasis (controls  $24.1 \pm 12.4$  vs. psoriasis (pre)  $33.4 \pm 20.5$ ,  $p = 0.026$ ) going along with higher serum concentrations of IgA (controls  $482.7 \pm 238.5$  mg/dl vs. psoriasis (pre)  $647.7 \pm 391.9$  mg/dl,  $p = 0.0406$ ), but not of IgG (controls  $1,501 \pm 4,440.9$  mg/dl vs. psoriasis (pre)  $1,528 \pm 440.1$  mg/dl,  $p = 0.80$ ), IgM (controls  $176.0 \pm 78.0$  mg/dl vs. psoriasis (pre)  $166.1 \pm 80.1$  mg/dl,  $p = 0.6081$ ) or IgE (controls  $192.4 \pm 214.2$  IU/l vs. psoriasis (pre)  $191.5 \pm 261.7$  IU/l,  $p = 0.99$ ), compared with the control group.