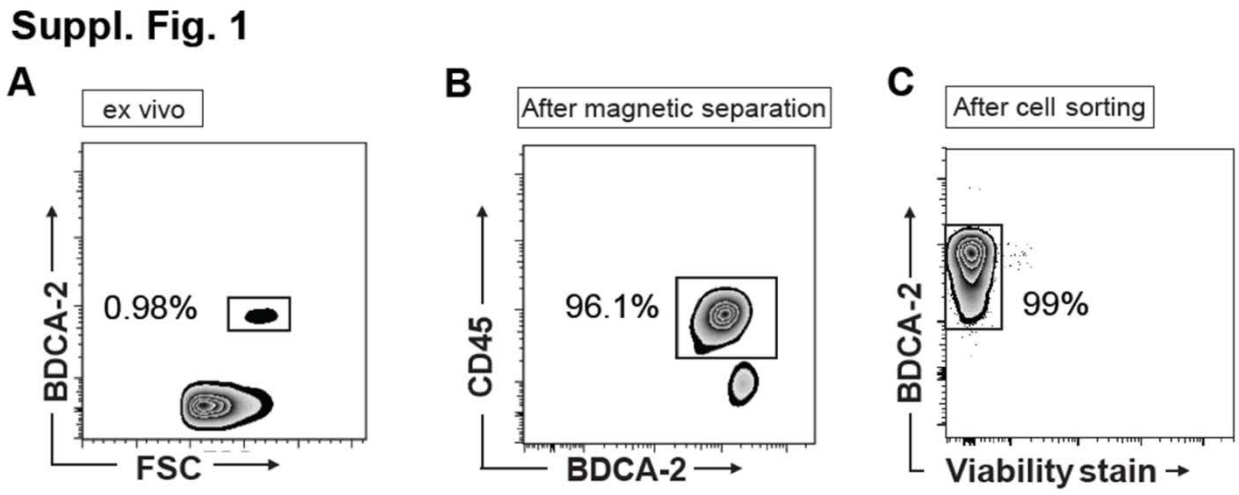
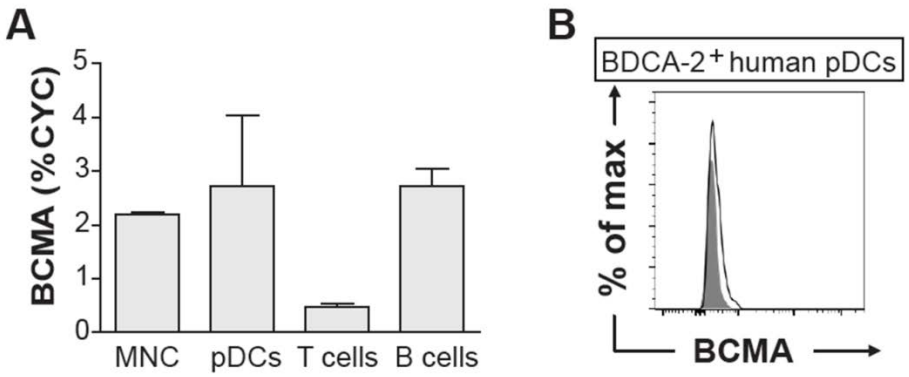


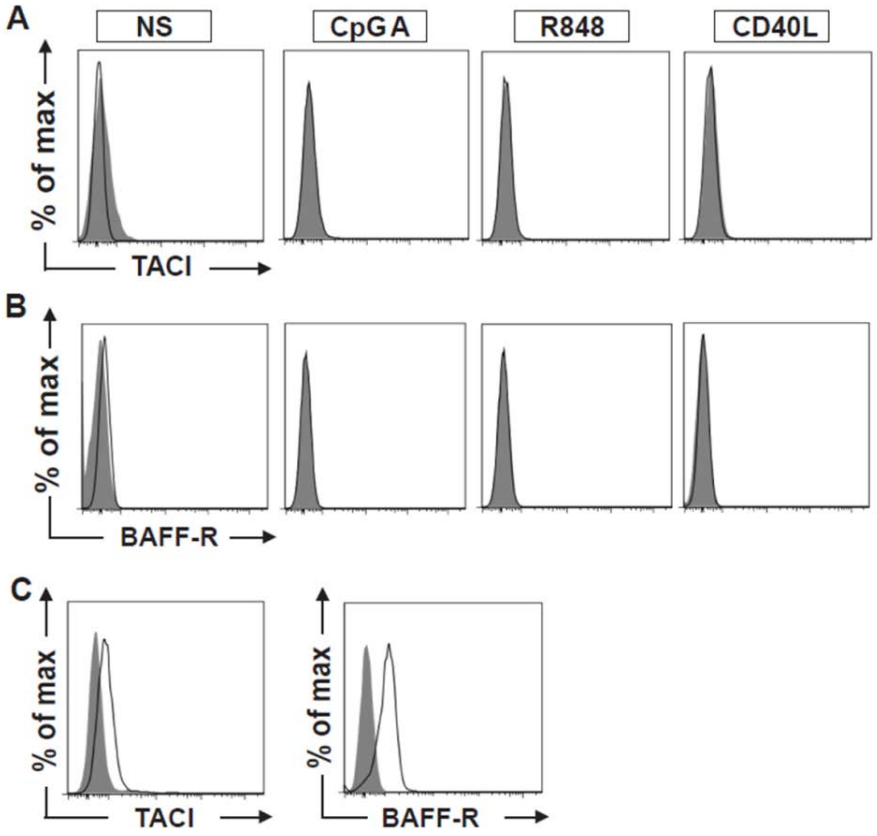
Supplementary figure 1. *Stepwise isolation of primary human pDCs.* To work with primary human pDCs we established a stepwise purification protocol of whole PBMCs. Each experiment represents one blood donor. **(A)** FACS staining of PBMCs. The frequency of pDCs in PBMCs ranged between 0.4-1%. **(B)** After a positive selection with magnetic beads and anti-BDCA-4, purity exceeded 95% as determined by BDCA-2^+ and $CD45^+$ surface expression. To enhance purity, BDCA-2^+ cells were additionally sorted by FACS. **(C)** Purity levels exceeded 99% when gated on the living cell population.

Suppl. Fig. 2



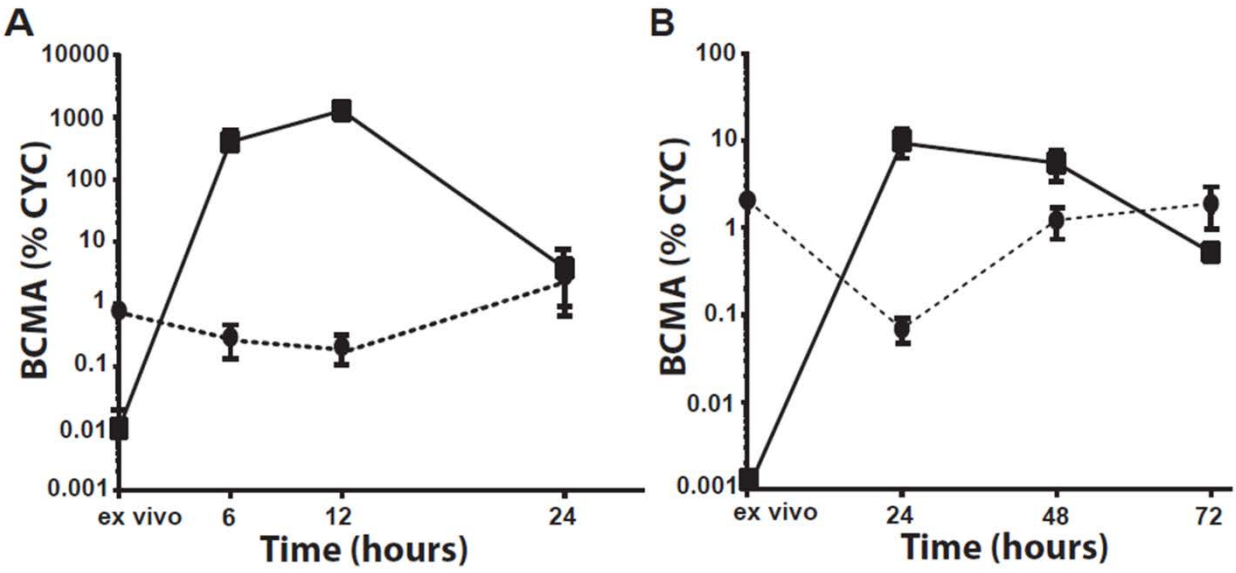
Supplementary figure 2. *Tonsil derived pDCs contain BCMA transcripts, but lack BCMA protein on the cell surface.* **(A)** The indicated immune cell subsets were purified with magnetic beads from tonsils and the expression levels of BCMA were determined by qPCR. Combined data of 3 independent experiments with 3 donors are depicted (mean±SEM). **(B)** Single cell suspensions from tonsils were analyzed by flow cytometry. The BDCA-2^+ pDCs fraction shows a similar staining with anti-BCMA and control Ig. One representative of 3 independent experiments is shown. The closed histogram represents the isotype control, the solid black lines the BCMA surface expression.

Suppl. Fig. 3



Supplementary figure 3. *Human pDCs do not express TACI and BAFF-R after activation.* **(A, B)** pDCs purified from human blood were cultured for three days with CpG-A (ODN 2216), R848 or CD40L expressing mouse fibroblasts. Then, surface expression of BAFF-R and TACI was determined. **(C)** The Burkitt's lymphoma cell line RAJI was used as positive control for TACI and BAFF-R expression.

Suppl. Fig. 4



Supplementary figure 4. *Transcript levels of BCMA and IFN-α1 after stimulation of human pDCs with CpG-A.* Human pDC were sorted from blood, stimulated with CpG-A and cultured for the indicated time points. Subsequently RNA was obtained, cDNA prepared and a qPCR was performed for *BCMA* (dotted line) and *IFN-α1* (solid line). Three experiments were performed to analyse the expression levels after a short time **(A)** and three others to examine this after a longer culture period **(B)**. Error bars indicate SEM.