

Supplementary material

Specific induction of the unique GPR15 expression in heterogeneous blood lymphocytes by tobacco smoking

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Supplementary tables

Supplementary table 1

Comparison of transcriptome between GPR15+ and GPR15- sorted T cells (CD3+) from peripheral blood of one healthy volunteer (chronic active smoker) by RNAseq (n=1).

Supplementary table 2

Simple linear correlations (Pearson r) of qPCR data between intraindividual differences of normalized GPR15 expression (log2) between GPR15- T cells and GPR15+ T cells and intraindividual differences in normalized gene expressions (log2) of randomly selected genes between GPR15- T cells and GPR15+ T cells. The absent correlation underlines an unique expression of GPR15, not accompanied by a co-expression with another protein.

Supplementary table 3

Comparison of proportion of chemokine expression as surface protein (A, FACS analysis) or RNA transcript (B, RNAseq analysis) between GPR15- and GPR15+ T cells (CD3+). The trend of expression is similar in both analyses, irrespective of the number of subjects. CI, confidence interval.

Supplementary table 4

Used antibody panels for T cell subtype discrimination by FACS-analyses.

Supplementary figures

Supplementary figure 1

Different proportion of T cell subtypes among GPR15- T cells in adult non-smokers and smokers.

In contrast to GPR15+ T cells, naïve T cells are the most abundant T cell type. The numbers 3, 4, 5, 6 and 10 in T cell subtypes indicate CXCR3-, CCR4-, CXCR5-, CCR6- and CCR10-surface receptors. +,- indicates presence or absence of surface receptor.

Supplementary figure 2

Proportion of T cell subtypes in blood considering smoking behaviour. The numbers 3, 4, 5, 6 and 10 in T cell subtypes indicate CXCR3-, CCR4-, CXCR5-, CCR6- and CCR10-surface receptors. CD3+ T cells are related to lymphocytes. +,- indicates presence or absence of surface receptor. Main Th, Tc, non Tfh and Tfh as well as naïve/effector/memory cells are related to CD3+T cells. Subtypes of Th, Tfh and Tc are related to the whole Th, Tfh and Tc fraction, respectively. Asterisks indicate trend for significant difference between non-smoker and smoker for $p < 0.05$ (Student's t-test, p-value of significance for multiple testing [0.00116] was not reached).