

Supplementary Figure legends

Supplementary Figure 1. Assessing purity of monocyte isolation. A sample of peripheral blood mononuclear cells (top), of which the CD14-positive selected cells (middle) were isolated and the non-selected cells (bottom) were incubated with anti-human CD14 (APC, 1:200, Clone M ϕ P9, cat no. 345787, BD), measured by flow cytometry LSR-II (BD Biosciences, Vianen, The Netherlands), and analyzed using FlowJo Software version 10 (Tree Star, Ashland, OR, USA).

Supplementary Figure 2. Assessing multiple housekeeping genes. Quantitative PCR analysis of different housekeeping mRNA isolated from THP1-monocytes or -macrophages (A) or primary monocytes or macrophages (B). Gene expression is expressed Ct values. (A) each color is different housekeeping gene measured in 3 independent THP1 monocytes and 3 independent THP1 macrophages samples. (B) each color represents a different donor of primary monocytes or macrophages, $n = 7$.

Supplementary Figure 3. Visualization of the axon guidance pathway and the gene expression changes during human monocyte-to-macrophage differentiation. The gene expression in monocytes and macrophages was obtained from GEO database (Accession: GSE9820, Supplementary Table 1 Dataset 1). Data from 12 individuals were pooled for each cell type.

Supplementary Figure 4 Visualization of the axon guidance pathway and the gene expression change during THP-1 cell to THP-1 macrophage differentiation. The changes in gene expression in THP-1 cells to THP-1 macrophages were profiled in on the “Affymetrix GeneChip Human HJAY Array” (Accession: GSE74887, Supplementary Table 1 Dataset 2). Data from 3 technical replicates were pooled for each cell type.

Supplementary Figure 5. Expression of NGCs in human monocyte/macrophage cell line. Heatmap of expression of NGCs in THP1 cells/THP1 macrophages in a log₂ scale. Light blue: higher expression; dark blue: lower expression; $n = 3$; * $P < 0.05$.

Supplementary Figure 6. Confirmation of regulation of NGC expression. Quantitative PCR analysis of NGCs mRNA isolated from THP1-monocytes or -macrophages. Gene expression is expressed as copies per GAPDH in a log₂ scale. Graphs show the mean \pm S.E.M. $n = 3$ * $P < 0.05$.

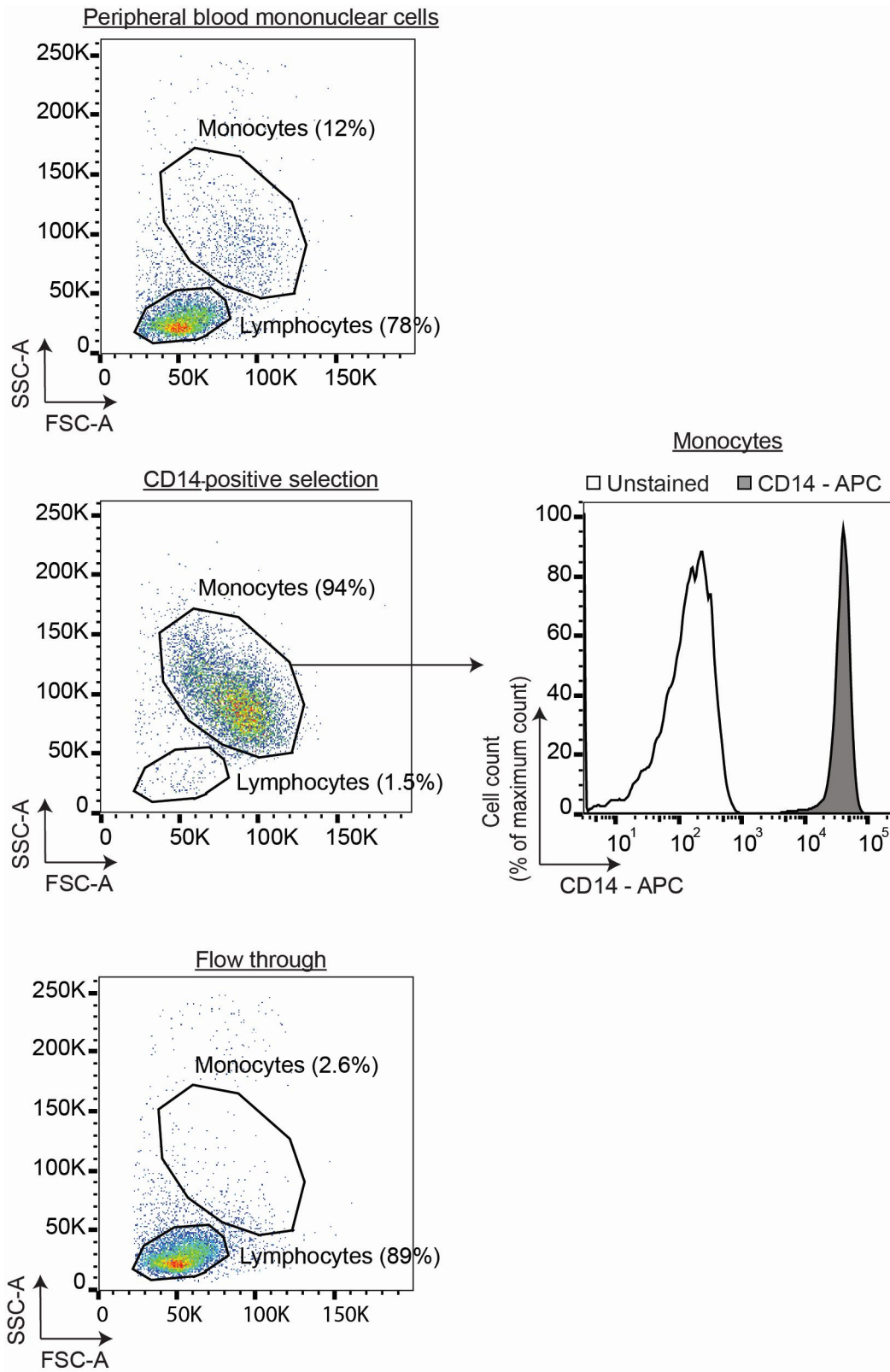


Figure 1

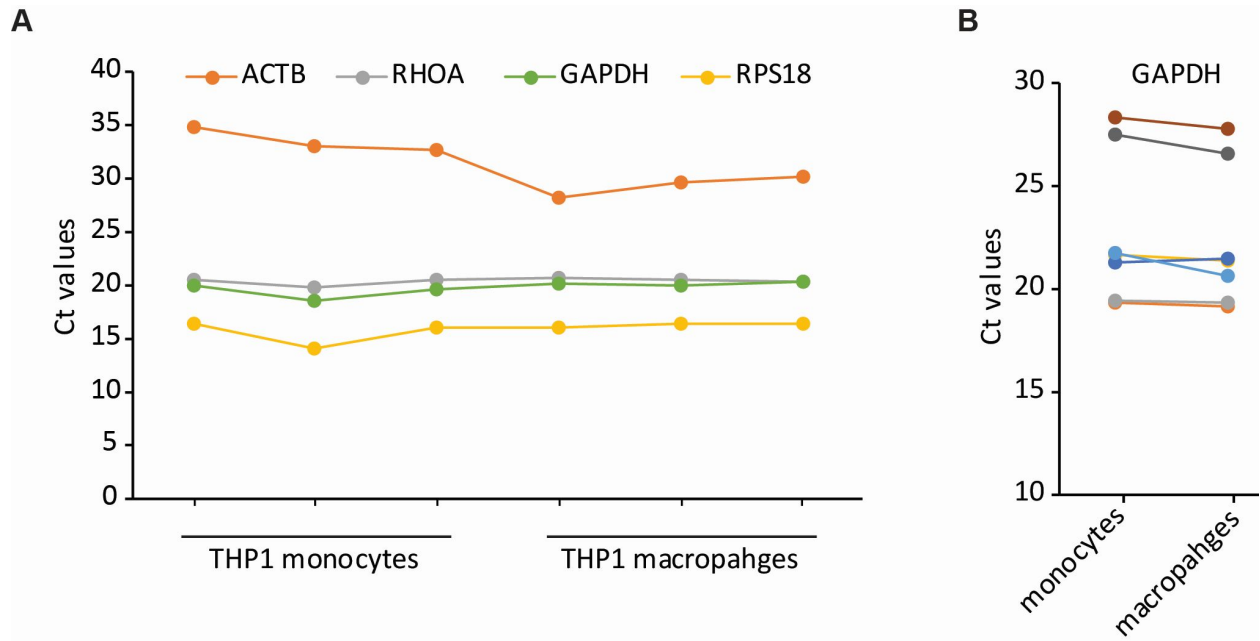


Figure 2

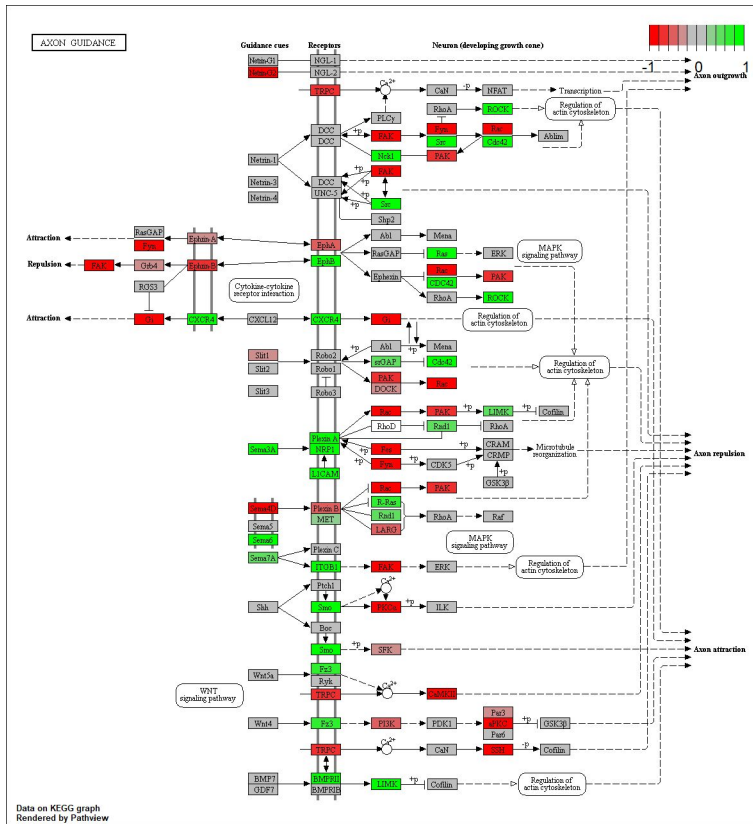


Figure 3

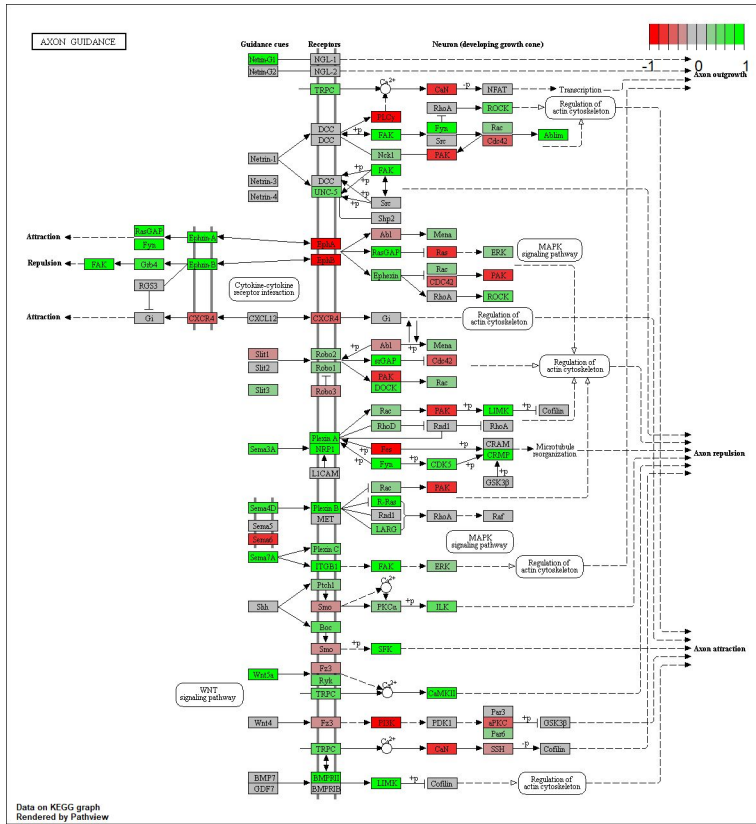


Figure 4

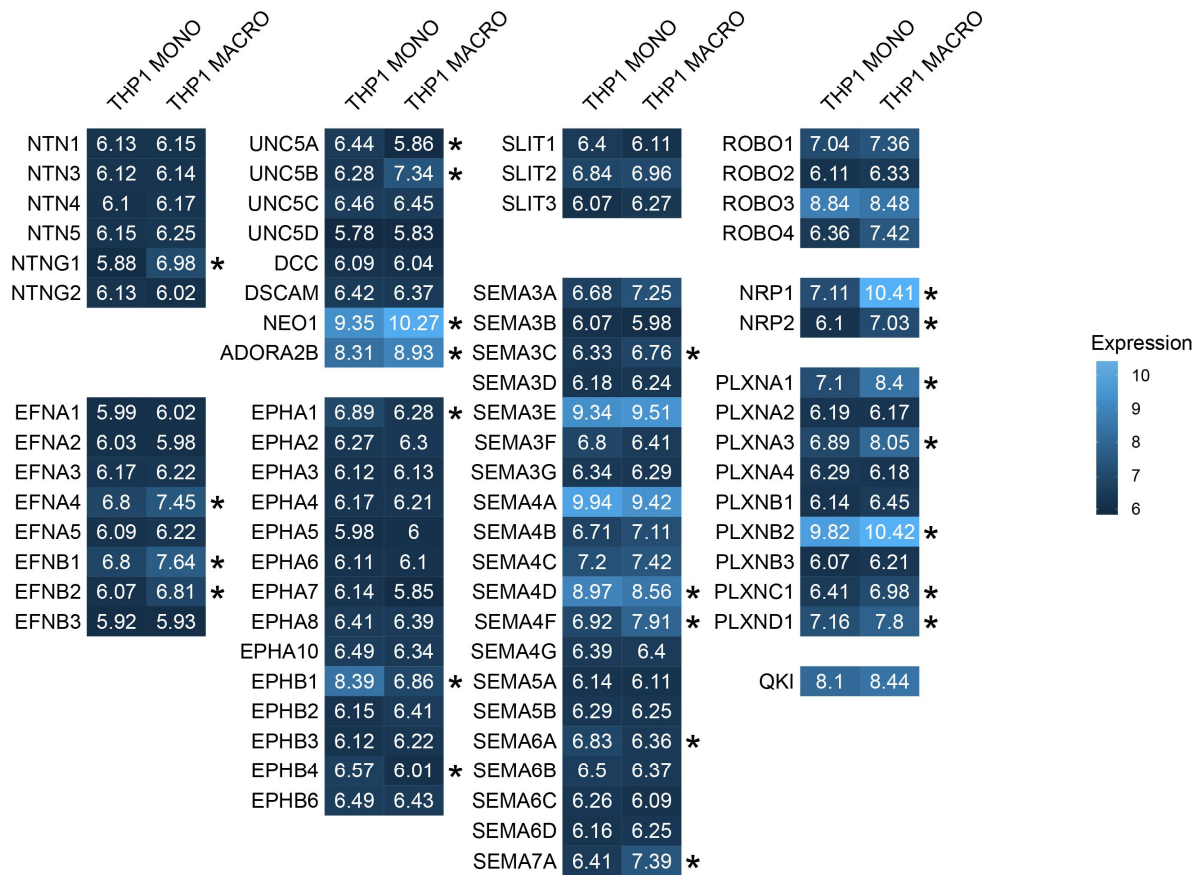


Figure 5

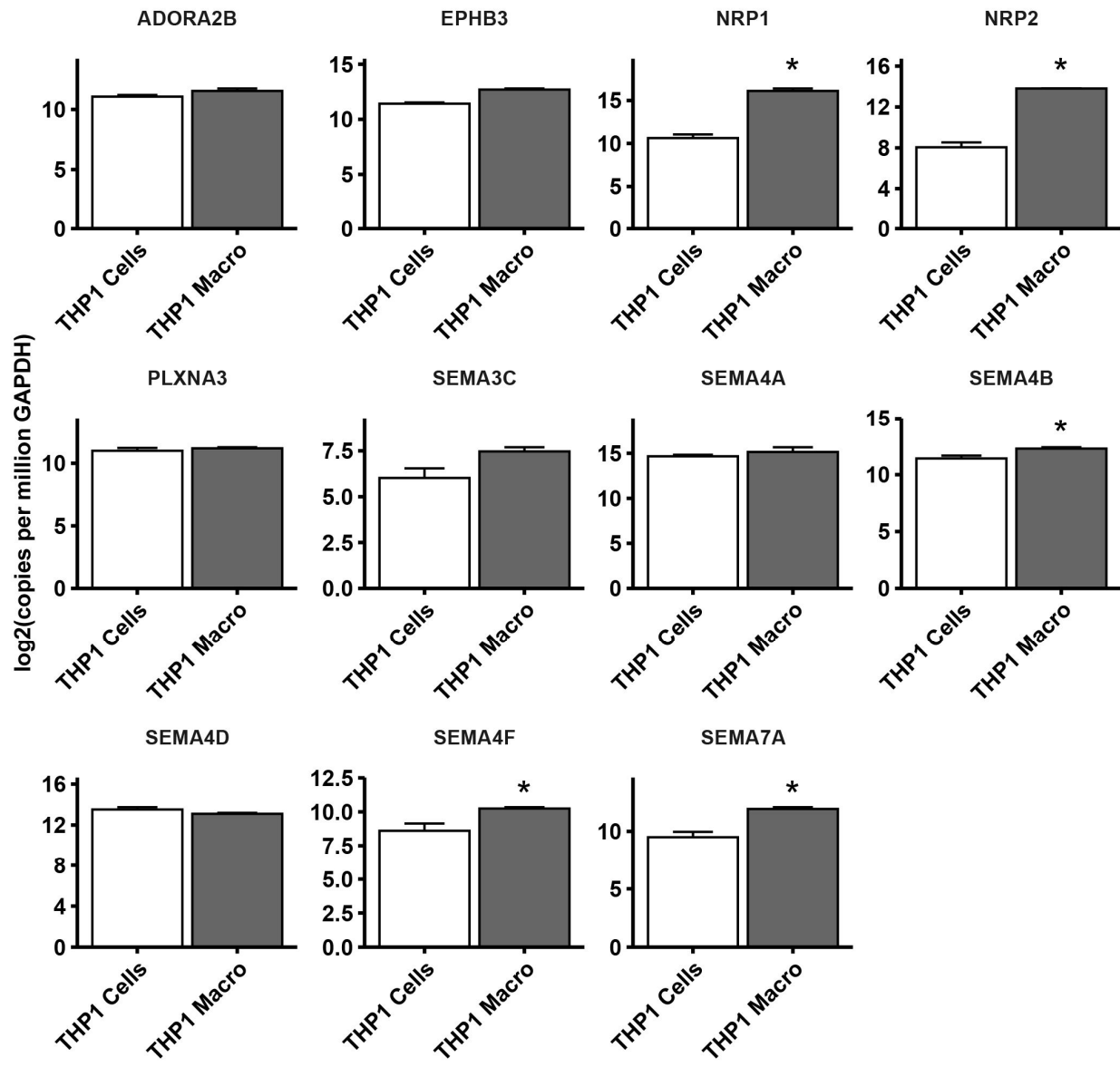


Figure 6