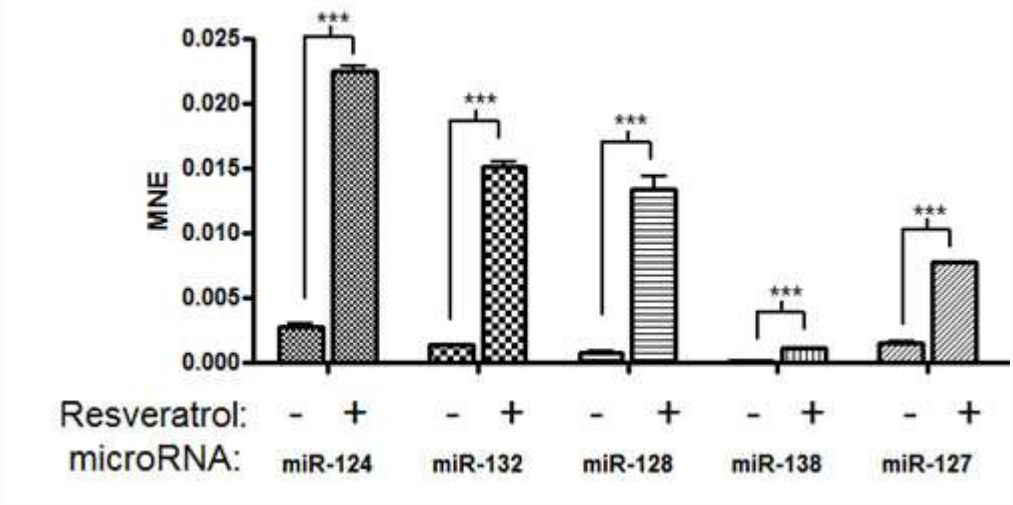
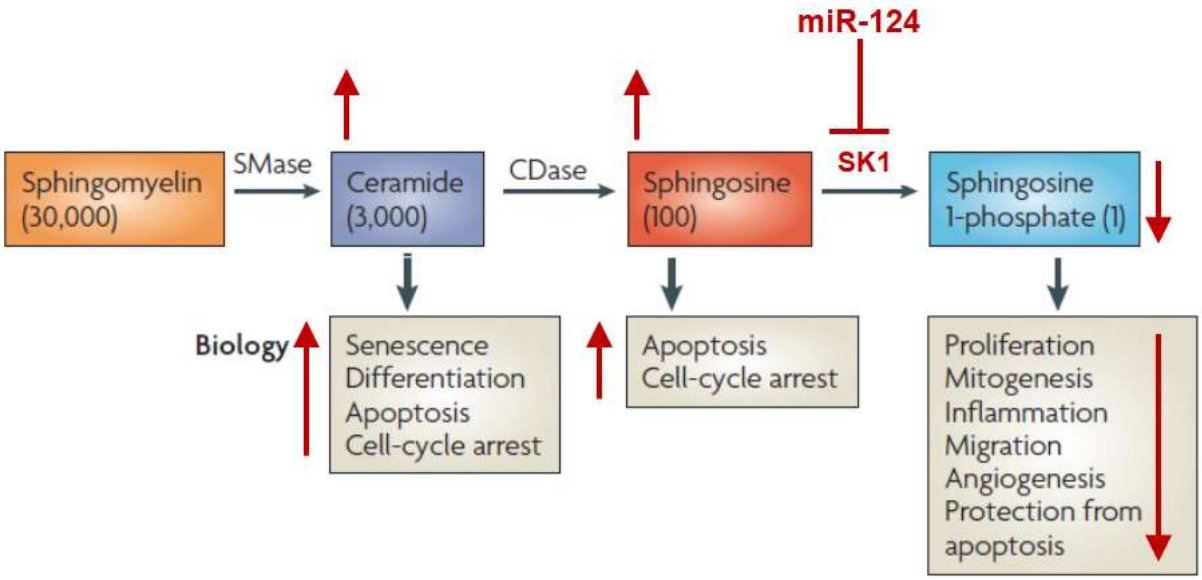
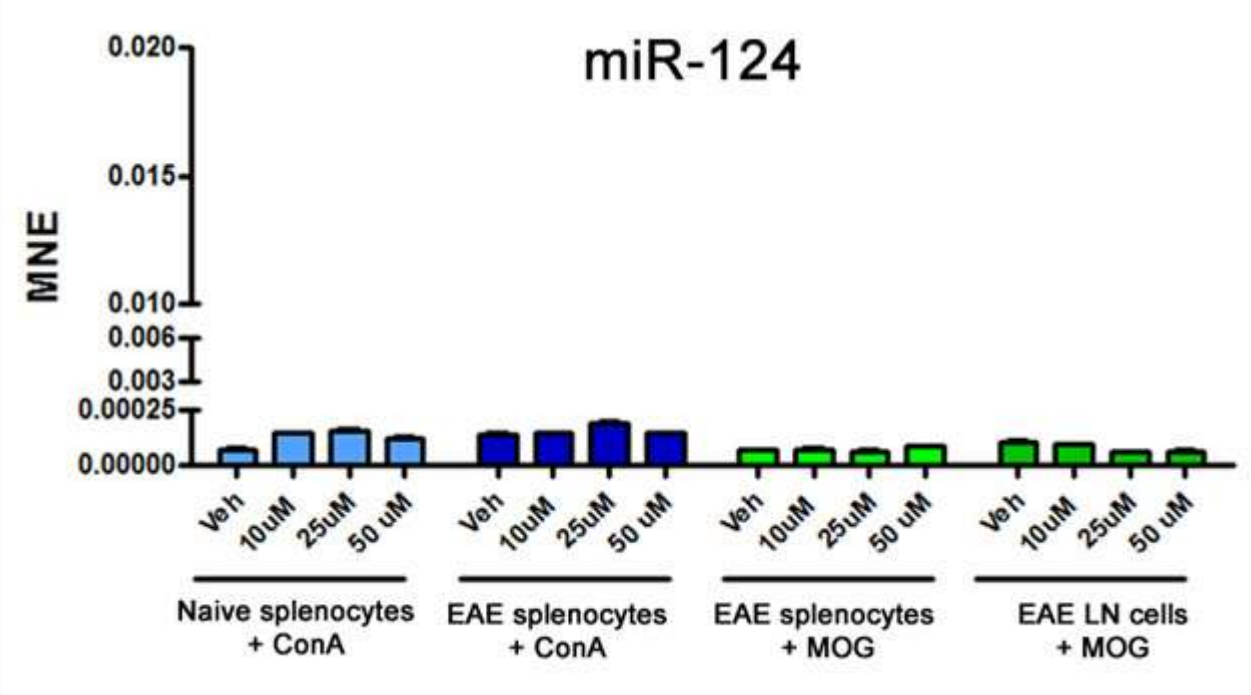
Supplementary material



Supplemental Figure 1 **Validation of microarray top up-regulated miRNAs.** Brain-derived CD4+ T cells were isolated and the top five up-regulated miRNAs detected by microarray analysis were validated: miR-124, miR-132, miR-128, miR-138 and miR-127. Statistical significance was assessed using a two-tailed Student's t test, *, *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$; ****, $p < 0.0001$. $n \geq 4$ independent experiments.



Supplemental Figure 2 **Schematic representation of miR-124/SK1 axis in cell-cycle arrest and apoptosis.** miR-124 targets SK1, preventing the production of sphingosine-1 phosphate (S1P), thus, inhibiting pro-survival and proliferative functions of S1P. Furthermore, inhibition of SK1 results in metabolic flux, leading to increased sphingosine and ceramide levels, which drive cell-cycle arrest and apoptosis. Figure adapted from (Hannun and Obeid 2008). SMase, sphingomeylinse; CDase, ceramidase; SK1, sphingosine kinase 1



Supplemental Figure 3 **In vitro Resveratrol treatment does not affect miR-124 expression**. Splenocytes or lymphocytes (derived from inguinal lymph nodes) were isolated from naïve or EAE + VEH mice and treated for 48 h with 2.5µg/mL Concanavalin A (ConA) or 72 h with 30µg/mL MOG. CD4+ cells were isolated and miR-124 expression was evaluated by qRT-PCR. Scale is used to enable comparison of in vitro stimulated miR-124 expression with encephalitogenic CD4+ T cells (Fig. 6a). MNE, mean normalized expression.