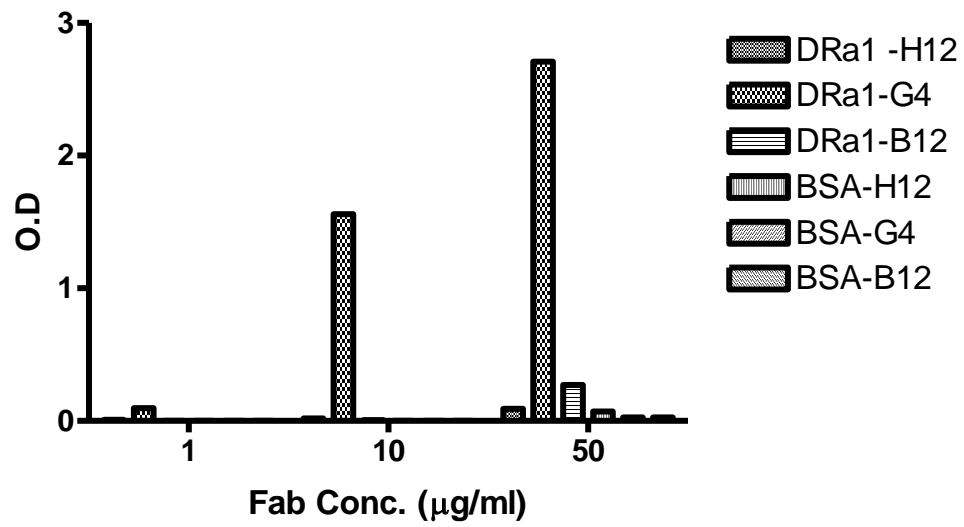
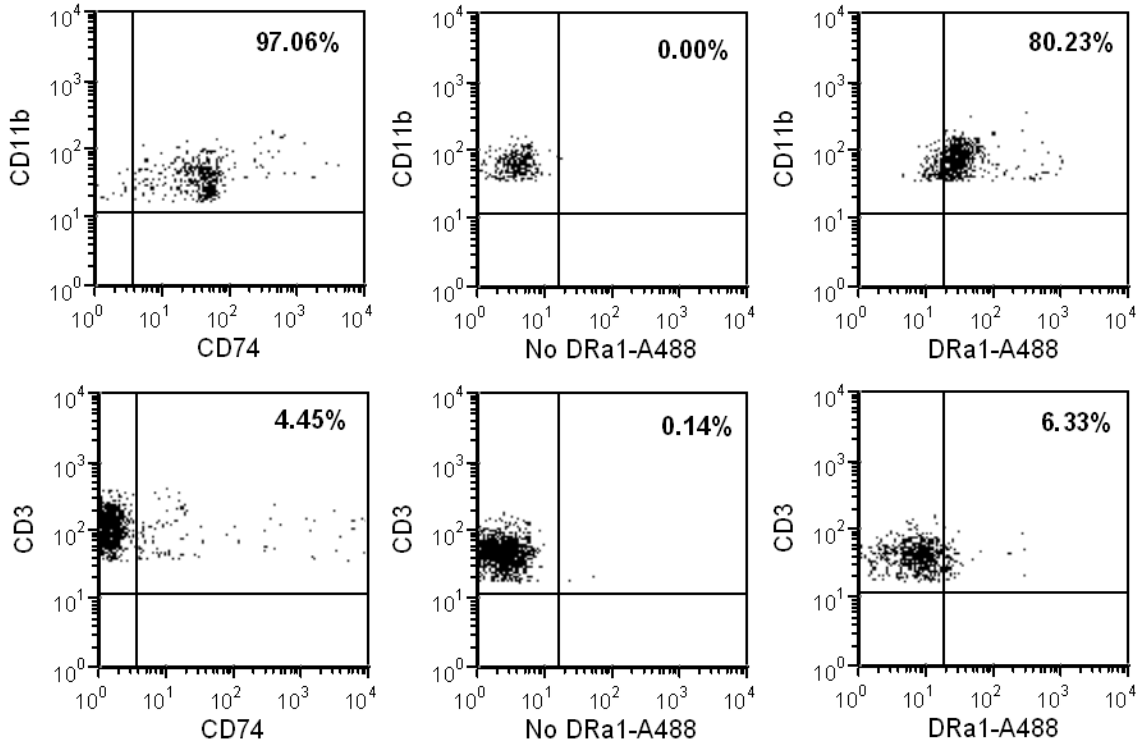


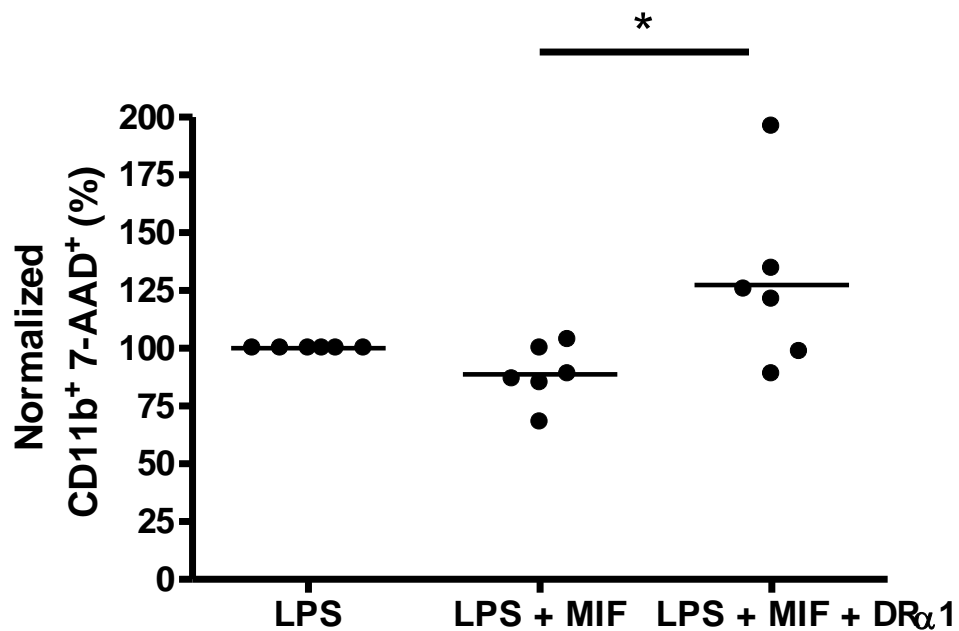
Supplementary info DRa1



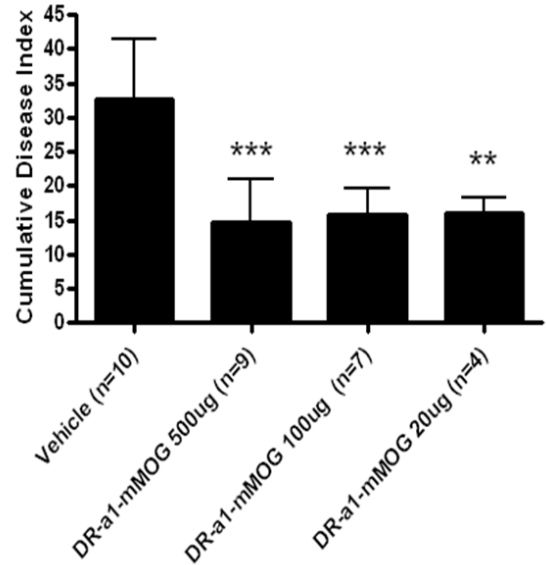
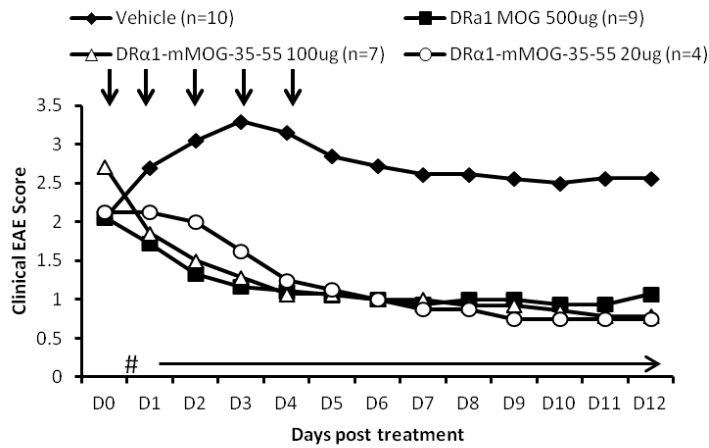
Supplementary Figure 1. Fab G4 specificity for DR α 1 construct. The binding of different Fabs (H12, G4 and B12) to DR α 1 or BSA was measured by ELISA assay for different concentrations.



Supplementary Figure 2. Binding of DR α 1 to CD74 expressing CD11b⁺ monocytes. Cells from DR*1501-Tg mice were analyzed for the surface expression of CD74 on CD11b⁺ or CD3 cells. Cells were also incubated with 5mg DR α 1-Alexa488 for 1 h at 37°C and analyzed for DR α 1-A488 binding to CD11b⁺ or CD3 cells.



Supplementary Figure 3. DR α 1 modulates MIF anti-apoptotic effects. Human PBMC from 6 HC subjects were stimulated with 10ng/ml LPS with or without 100ng/ml rhMIF and treated with 10 μ g/ml DR α 1. The cells were incubated at 37°C for 24 h and analyzed for 7-AAD staining on CD11b⁺ monocytes. Results were normalized to the LPS alone treatment of every subject separately. *p<0.05, One-way Kruskal-Wallis ANOVA with Dunn's multiple comparisons post test.



Supplementary Figure 4. DR α 1– MOG-35-55 treats clinical EAE. DR*1501 mice with EAE were treated at onset with Vehicle (5 daily treatments), DR α 1-MOG-35-55 (500 μ g X 5), DR α 1-MOG-35-55 (100 μ g X 5) and DR α 1-MOG-35-55 (20 μ g X 5). *left*: Daily mean clinical EAE disease scores. # $p < 0.001$, DR α 1- MOG-35-55(500 μ g), DR α 1- MOG-35-55(100 μ g) and DR α 1- MOG-35-55(20 μ g) vs. Vehicle. *right*: Statistical comparisons of cumulative disease indices (CDI): ** $p < 0.01$; *** $p < 0.0001$. Daily mean scores were analyzed by Mann Whitney U and mean CDI by one way ANOVA with Tukey post-test.