

Savino B, Castor MG, Caronni N, Sarukhan A, Anselmo A, Buracchi C, Benvenuti F, Pinho V, Teixeira MM, Mantovani A, Locati M, Bonecchi R. (2012). Control of murine Ly6C(high) monocyte traffic and immunosuppressive activities by atypical chemokine receptor D6. *Blood*. May 31;119(22):5250-60.

The atypical chemokine receptor D6 is a decoy and scavenger receptor for most inflammatory CC chemokines and prevents the development of exacerbated inflammatory reactions. Here we report that mice lacking D6 expression in the nonhematopoietic compartment have a selective increase in the number of Ly6C(high) monocytes in the circulation and in secondary lymphoid tissues. Under inflammatory conditions, Ly6C(high) monocytes accumulate in increased number in secondary lymphoid organs of D6(-/-) mice in a CCR2-dependent manner. Ly6C(high) monocytes derived from D6(-/-) mice have enhanced immunosuppressive activity, inhibit the development of adaptive immune responses, and partially protect mice from the development of GVHD. Thus, control of CCR2 ligands by D6 regulates the traffic of Ly6C(high) monocytes and controls their immunosuppressive potential.