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| Title | Class IV semaphorins in disease pathogenesis |
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Table 1 Class IV semaphorins implicated in the pathogenesis of autoimmune diseases

| Semaphorins | Related diseases | Expression | Receptor | Associated functions |
|-------------|--|--|--------------------------------|---|
| Sema4A | Retinitis pigmentosa [17,19,20] | RPE | Not applicable | Endosomal sorting [18] |
| | Multiple sclerosis [25] | DCs T _H 1 cells | Plexin Bs Plexin D1 TIM2 | T _H 17 cell differentiation [25] T _H 1 cell differentiation [13] |
| | Allergic asthma [33] | T _H 2 cells T _H 1 cells | TIM2 | T _H 1/T _H 2 cell differentiation [13] |
| | Allergic dermatitis [33] | T _H 2 cells T _H 1 cells | TIM2 | T _H 1/ T _H 2 cell differentiation [13] |
| | Eosinophilic chronic rhinosinusitis [35] | Eosinophils | Not examined | Activation of IL-5R/STAT5-dependent pathway [35] |
| | Inflammatory bowel disease [36] | Lymphocytes | Not examined | Unknown |
| | Systemic sclerosis [39] | Monocytes T _H cells | Plexin D1 Plexin B2 Nrp1 | Cytokine production from T _H 17 cells [39] Activation of fibroblasts [39] |
| Sema4D | ANCA-associated vasculitis [66] | Neutrophils | Plexin B2 | Inactivation of neutrophils [66] |
| | Kawasaki disease [67] | Neutrophils | Plexin B1 Plexin B2 | Cytokine production from coronary endothelial cells [67] |

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|--|--|--------------------------|--------------|--|
| | Rheumatoid arthritis [70] | Lymphocytes Monocytes | Not examined | Cytokine production from monocytes [70] |
| | Eosinophilic chronic rhinosinusitis [77] | Eosinophils | Plexin B1 | Transendothelial migration of eosinophils [77] |
| | Primary sclerosing cholangitis [78] | T cells | Not examined | IFN- γ production [78] |
| | Osteoporosis/Osteopetrosis [7, 83] | Osteoclasts | Plexin B1 | Osteoblast activation [7] |

Annotated numbers correspond to reference numbers in the main text. Abbreviation: RPE, retinal pigment epithelium; DCs, dendritic cells; T_H1, type 1 helper T; T_H2, type 2 helper T; T_H17, T helper 17; TIM-2, T-cell, immunoglobulin, and mucin domain protein 2; IL-5R, interleukin-5 receptor; STAT5, signal transducer and activator of transcription 5; Nrp1, neuropilin-1; ANCA, antineutrophil cytoplasmic antibody; IFN- γ , interferon gamma.