



Semaphorins can exist either in a soluble form or membrane bound form. Both are utilized in axonal repulsion, but recent studies demonstrate that semaphorins can also mediate attraction. In addition, soluble Sema3A binds to Neuropilin-1, which lacks an intracellular domain and thus co-signals with Plexin A. Sema4A in its membrane form binds to Plexin B1 for its signaling pathway. Together, these mammalian semaphorins can mediate axonal guidance and target selection.