Human Plexin C1 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF3887

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Plexin C1 in Western blots. In Western blots, approximately 10% cross-reactivity with recombinant mouse (rm) Plexin A1, rmPlexin A2, and rmPlexin A3 is observed and less than 5% cross-reactivity with recombinant human (rh) Plexin B1 is observed, and less than 1% cross-reactivity with rhPlexin D1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Plexin C1 Ile49-Ser161 Accession # O60486
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Plexin C1 (Catalog # 3887-PC)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Plexin C1, also known as Virus-encoded semaphorin protein receptor (VESPR) and CD232, is a 210 kDa type I transmembrane glycoprotein in the C subfamily of the Plexin family (1, 2). Human Plexin C1 contains a 34 amino acid (aa) signal sequence, a 910 aa extracellular domain (ECD) with one Sema-domain and two cysteine-rich Met-related sequences (MRS), a 21 aa transmembrane domain and a 603 aa cytoplasmic domain that includes features common to other plexins, including a phosphothreonine site. The human Plexin C1 ECD shares 85%, 82% and 71% aa identity with murine, bovine and opossum Plexin C1, respectively. Plexin C1 is widely expressed in neuronal and non-neuronal fetal and adult tissues (3). In neuronal development, its role is unclear. Semaphorin-7a (Sema 7A, CD108) binds Plexin C1 *in vitro*, and the two show a similar expression pattern during rat neuronal development. However, in rat, β1 integrins rather than Plexin C1 appear to mediate Sema 7A effects on axon outgrowth (4, 5). Plexin C1 does appear to play a role in the partitioning of paraventricular and supraoptic neurons in the hypothalamus, as indicated by specific defects seen in mice deleted for Plexin C1 (6). In the immune system, effects of Sema 7A on T cell-mediated inflammatory responses also appear to be mediated by β1 integrins rather than plexins (7). However, Plexin C1 may function to oppose the effect of β1 integrins, as it does on Sema 7A-mediated spreading and dendrite formation in melanocytes (8). Plexin C1 is the receptor for the poxvirus (A39R protein) and herpes virus (AHVsema) semaphorin homologs, and mediates activation of monocytes and inhibition of dendritic cell and neutrophil phagocytosis by A39R (2, 9, 10).

References:

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