

Semaphorin-3A (Central Region) Peptide

Cat. # SX1225

Size 50 µg

Background:

One family of inhibitory axon guidance molecules is the semaphorins. The semaphorins include secreted, transmembrane, and GPI-anchored extracellular molecules that are involved in regulating axon guidance by inhibiting axons from growing toward incorrect targets. Semaphorin 3A (Sema3A) may play a particularly interesting role in limiting axon regeneration since it is expressed in meningeal fibroblasts that invade the injured spinal cord and surround the glial scar. In addition, the Sema3A co-receptors, Neuropilin-1 and Plexin-A1, are expressed on axons that regenerate up to the injured region, but do not cross this Sema3A-containing region. Thus, Sema3A and its co-receptors may have important roles in regulating axon guidance during neuronal development and after neuronal injury.

References

Kolodokin, A.L. et al. (1993) Cell 75:1389.
Luo, Y. et al. (1993) Cell 75:217.
Pasterkamp, R.J. & Verhaagen, J. (2001) Brain Res Rev 35:36.

Peptide Sequence:

Semaphorin 3A synthetic peptide corresponds to amino acids in the central region of human Sema3A. This sequence is highly conserved in rat and mouse Sema3A, and has low homology to other semaphorin family members.

Buffer and Storage:

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications:

Blocking 1:1,000

ELISA 50 ng/well

End user should determine optimal concentration dependent on the concentration of the antibody.
Recommended for blocking antibody reactivity in Western blot and immunocytochemistry.
ELISA established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

Specificity:

The peptide is specifically recognized by anti-Sema3A (Central region) antibody (SP1221) in ELISA, and has been shown to block the reactivity of SP1221 during Western blot. In addition, the peptide is recommended for use in blocking SP1221 reactivity in immunocytochemistry.

Related Products:

SP1241 Semaphorin-3A (C-terminal) Rabbit Polyclonal
SP1221 Semaphorin-3A (Central Region) Rabbit Polyclonal
SP1401 Semaphorin-3A (N-terminal) Rabbit Polyclonal
SM1881 Semaphorin-4D (C-terminal Region) Mouse Monoclonal
PP1301 Plexin A1 (Sema Domain) Rabbit Polyclonal
PP1841 Plexin B1 (C-terminal Region) Rabbit Polyclonal

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