

# Semaphorin-3A (N-terminal)

Cat. # SP1401

Host Rabbit Polyclonal

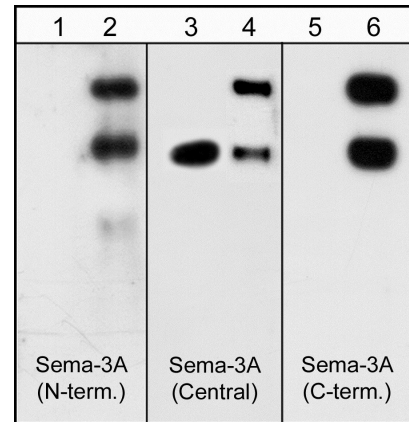
Size 100 µl

## 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.



Western blots of neonatal rat brain (lanes 1, 3 & 5) and human recombinant Sema3A/Fc chimera (95/125 kDa) (lanes 2, 4 & 6). Blots were probed with anti-Sema3A (SP1401) (lanes 1 & 2), anti-Sema3A (SP1221) (lanes 3 & 4) and anti-Sema3A (SP1241) (lane 5 & 6). The antibodies recognize both the 95 kDa and 125 kDa forms of the recombinant Sema3A.

## Immunogen:

Semaphorin 3A synthetic peptide (coupled to carrier protein) corresponding to amino acids in the N-terminal region of human Sema3A. The sequence used is identical to similar regions in rat and mouse Sema3A, and has low homology to other semaphorin family members.

## Applications:

WB 1:1000  
ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

## Related Products:

- SX1405 Semaphorin-3A (N-terminal) Peptide  
SP1221 Semaphorin-3A (Central Region) Rabbit Polyclonal  
SP1241 Semaphorin-3A (C-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

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

## Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

## Specificity:

The antibody detects a 95kDa\* protein corresponding to the apparent molecular mass of Sema3A on SDS-PAGE immunoblots of human recombinant Sema3A/Fc chimera. This antibody has not been shown to be reactive in neonatal rat brain, but has weak reactivity in adult mouse brain.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

www.ecmbiosciences.com  
telephone: 859-879-2075  
toll-free: 1-800-859-8202  
tech: info@ecmbiosciences.com

**ECM**Biosciences

Rev 11/16/2007