

Semaphorin-3 and Neuropilin Antibody Sampler Kit

Catalog # SK6420

Kit Components:

Catalog#	Description	Host	Size	Applications	Species Reactivity	MW (kDa)
SP1221	Semaphorin-3A (Central Region)	Rabbit pAb	50 µl	WB, E, IHC, ICC	H, R, M	95
SP3921	Semaphorin-3F (a.a. 746-762)	Rabbit pAb	50 µl	WB, E	H, R, M	95
NP2111	Neuropilin-1 (a1 CUB Domain)	Rabbit pAb	50 µl	WB, E, ICC, IHC	H, R, M	130
NM3911	Neuropilin-2 (MAM Domain)	Mouse mAb	50 µl	WB, E	H, R, M	130
MS3001	Anti-Mouse Ig:HRP	Donkey pAb	100 µl	WB, E		
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 µl	WB, E		

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, IHC = Immunohistochemistry. Species: H = Human, R = Rat, M = Mouse

Kit Summary:

The Semaphorin-3 and Neuropilin antibody sampler kit can be used to examine the expression of semaphorin 3A (Sema-3A) and 3F (Sema-3F), and their receptors, Neuropilin 1 (NRP1) and Neuropilin 2 (NRP2). Included in the kit are secondary reagents for detection of rabbit polyclonal and mouse monoclonal antibodies.

Buffers and Storage:

Rabbit polyclonal and mouse monoclonal antibodies are supplied in 50µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Secondary reagents are supplied in the same buffer without sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Background:

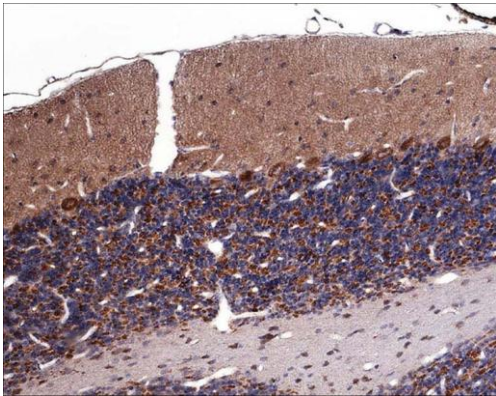
One family of inhibitory axon guidance molecules is the semaphorins. The semaphorins include secreted, transmembrane, and GPI-anchored extracellular molecules that have been implicated in neuron development, vascular disease, and tumor progression. There are eight classes of semaphorin genes, all of which are characterized by a conserved 500 amino acid, cysteine-rich Sema domain. Sema-3A and Sema-3F are class III secreted semaphorins that bind with high affinity to Neuropilin-1 and Neuropilin-2, respectively. Both Sema-3A and Sema-3F, as well as their neuropilin receptors, may have important roles in axon guidance, angiogenesis, and tumor progression.

References:

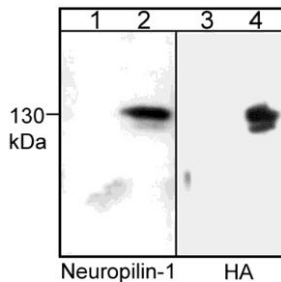
Kolodokin, A.L. et al. (1993) Cell 75:1389.
Luo, Y. et al. (1993) Cell 75:217.
Xiang, R.H. (1996) Genomics. 32(1):39.
Pasterkamp, R.J. & Verhaagen, J. (2001) Brain Res Rev 35:36.

Product References:

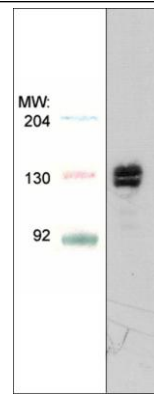
SP1121
Tang, X-Q. et al. (2007) J. Neurosci. 27(22):6068 (WB: Rat E14 spinal cord)
Pan, H. et al. (2008) Breast Cancer Res Treat. Sep 12. (WB: human MDA-MB-231 cells, shRNA knockdown)
NP2111
Saban, M.R. et al. (2008) Am J Phys Renal Phys 295(1):F60 (ICC: H. Urothelium)



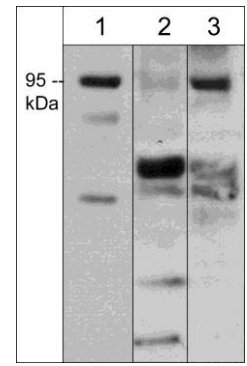
Formalin fixed, citric acid treated paraffin sections of adult Rat cerebellum. Sections were probed with anti-Sema3A (SP1221) then anti-Rabbit:HRP before detection using DAB. (Images provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).



A



B



C

Western blot images of **A**) COS-7 cells untransfected (lanes 1 & 3) or transfected with HA-tagged mouse NRP1 (lanes 2 & 4). The blots were probed with anti-NRP1 (NP2111) (lanes 1 & 2) or with anti-HA (lanes 3 & 4). **B**) Neuropilin-2 (NRP-2) expression in neonatal rat brain. The blot was probed with anti-NRP-2 (MAM Domain) at 1:250. **C**) Sema-3F expression in adult mouse brain (lane 1), kidney (lane 2), and liver (lane 3). The blot was probed with anti-Sema-3F (SP3921) at 1:1000.

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