

Robo1 & Robo2 Antibody Sampler Kit

Catalog # RK6100

Kit Summary:

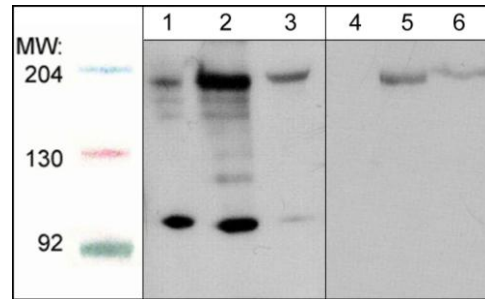
The Robo antibody sampler kit can be used to detect the level of Robo1 and Robo2 expression. The kit also includes peptides for antibody blocking experiments and a secondary reagent for antibody detection.

Background:

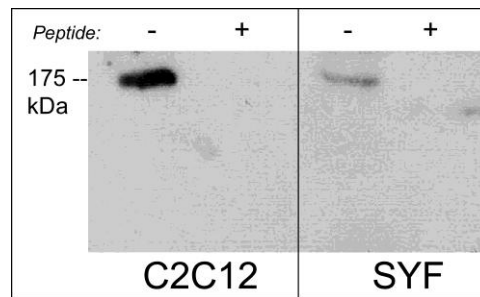
The Robo family of repulsive guidance receptors (Robo1-4) has important roles in controlling axon guidance and cell migration. These receptors are members of the immunoglobulin (Ig) superfamily and consist of an ectodomain with five Ig domains and three fibronectin type III repeats, a single transmembrane domain, and a long cytoplasmic tail that contains four blocks of conserved cytoplasmic sequences. In *Drosophila*, mutations in Robo, and its midline-expressed ligand Slit, result in too many axons crossing and staying at the midline. Several proteins that regulate the actin cytoskeleton, including cAbl, Ena, and Rho-family GTPases, contribute to the Robo signaling pathway. cAbl phosphorylates Robo1 at Tyr-1073, and this may inhibit Robo activity, while Slit-Robo signaling activates both Rac and Rho, and inactivates Cdc42. Thus, Robo guidance receptors control axon outgrowth and cell migration through activation of cell signaling pathways that regulate cytoskeletal dynamics.

Background References:

Kidd, T. et al. (1998) Cell 92:205.
Bashaw, G.J. et al. (2000). Cell 101:703.
Yang, L. & Bashaw, G.J. (2006). Neuron 52:595.



Western blot analysis of HepG2 (lanes 1 & 4), C2C12 (lanes 2 & 5), and HUVEC (lanes 3 & 6). The blot was probed with anti-Robo1 (C-terminal region) in absence (lanes 1-3) or presence of Robo1 (C-terminal region) blocking peptide (RX2795; lanes 4-6).



Western blot analysis of C2C12 and SYF mouse cell lines. The blots were probed with anti-Robo2 (C-terminal region) in the absence (-) or presence (+) of Robo2 (C-terminal region) blocking peptide (RX2865).

Kit Components:

Catalog#	Description	Type	Size	Applications	Species Reactivity	MW (kDa)
RP2791	Robo1 (C-terminal region)	Rabbit pAb	50 µl	WB, E	H, R, M	180
RP2861	Robo2 (C-terminal Region)	Rabbit pAb	50 µl	WB, E	H, R, M	175
RX2795	Robo1 (C-terminal region) Peptide	Peptide	50µg	AB, E		
RX2865	Robo2 (C-terminal region) Peptide	Peptide	50µg	AB, E		
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 µl	WB, E	Rabbit	

Applications: WB = western blot, E = ELISA, AB = Antibody Blocking. Species: H= Human, R = Rat, M = Mouse.

Buffers and Storage:

Rabbit polyclonal and mouse monoclonal, affinity-purified antibodies are each supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide (RS3251 does not contain sodium azide). Store at -20°C. Stable for 1 year.

Blocking Peptides are supplied in phosphate-buffered saline and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

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