

Robo1 (C-terminal region)

Cat. # RP2791

Host Rabbit Polyclonal

Size 100 µl

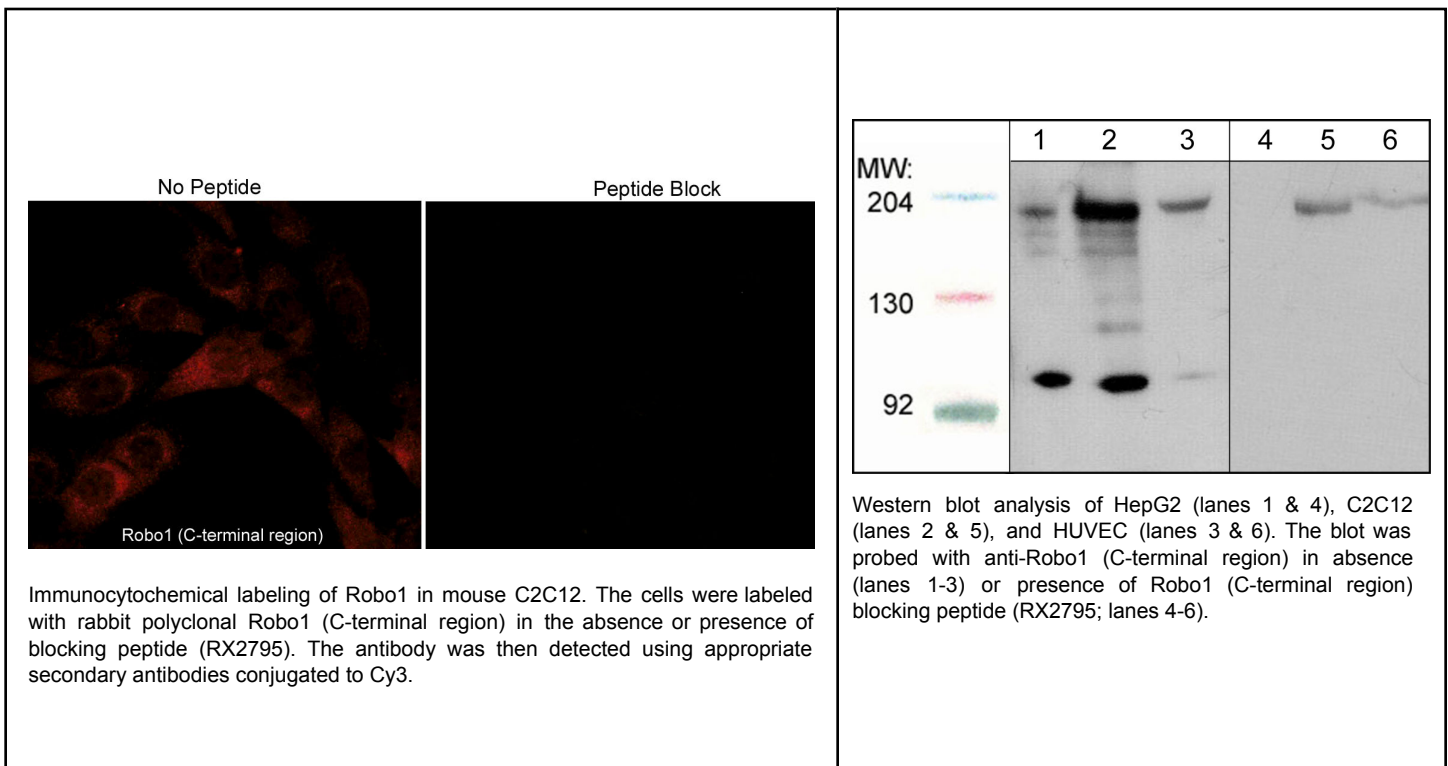
Background:

The Robo family of repulsive guidance receptors (Robo1-4) have 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.

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.


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Immunogen:

Robo1 synthetic peptide (coupled to carrier protein) corresponds to amino acids in the C-terminal region of human Robo1. This sequence has significant homology to the same region in rat and mouse Robo1, and has low homology to other Robo family members.

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 µl 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.

Applications:

WB 1:500
ELISA 1:2000
ICC 1:200

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 1hour at room temperature.

Specificity:

This antibody was affinity purified using Robo1 (C-terminal region) peptide. The purified antibody detects a 180 kDa* band corresponding to Robo1 in Western blots of human HepG2 and HUVEC cells, as well as mouse C2C12 cells.

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

Related Products:

RP2861 Robo2 (C-terminal Region) Rabbit Polyclonal
PP1301 Plexin A1 (Sema Domain) Rabbit Polyclonal
PP1471 Plexin A1 (Sema Domain) Rabbit Polyclonal
SM1881 Semaphorin-4D (C-terminal Region) Mouse Monoclonal
SP1221 Semaphorin-3A (Central Region) Rabbit Polyclonal
SP1241 Semaphorin-3A (C-terminal) Rabbit Polyclonal

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