

robo2 (H-100): sc-25673

BACKGROUND

Specialized cells at the midline, which separates the left and right halves of the CNS, have a number of roles in directing growth cone behavior. In the vertebrate spinal cord, the insect ventral nerve cord and in *C. elegans*, midline cells produce guidance cues such as neurtins and slit, which act as attractants and repellents, respectively. These cells may act as gatekeepers to prevent axons from crossing the midline and to induce a switch in growth cone responsiveness to guidance cues beyond the gateway. One such gatekeeper, Robo, is an axon guidance receptor that defines a novel subfamily of Ig superfamily proteins that are conserved from fruit flies to mammals. Robo acts as a receptor for the repellent Slit and functions in a cell-autonomous fashion. Non-crossing axons express high levels of Robo, whereas crossing axons express low levels of Robo before reaching the midline and high levels after they cross. Robo1 and Robo2 are two human homologs of the *Drosophila* protein Roundabout. Robo1 is also homologous to the *C. elegans* gene *sax3*, whereas Robo2 is homologous to the zebrafish gene *astray*.

CHROMOSOMAL LOCATION

Genetic locus: ROBO2 (human) mapping to 3p12.3; Robo2 (mouse) mapping to 16 C3.1.

SOURCE

robo2 (H-100) is a rabbit polyclonal antibody raised against amino acids 1281-1380 of robo2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

robo2 (H-100) is recommended for detection of robo2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

robo2 (H-100) is also recommended for detection of robo2 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for robo2 siRNA (h): sc-42254, robo2 siRNA (m): sc-42255, robo2 shRNA Plasmid (h): sc-42254-SH, robo2 shRNA Plasmid (m): sc-42255-SH, robo2 shRNA (h) Lentiviral Particles: sc-42254-V and robo2 shRNA (m) Lentiviral Particles: sc-42255-V.

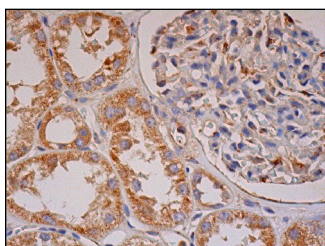
Molecular Weight of robo2: 172 kDa.

Positive Controls: mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



robo2 (H-100): sc-25673. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomerulus and tubules.

SELECT PRODUCT CITATIONS

1. Yi, X.N., et al. 2006. Dynamic changes in robo2 and Slit1 expression in adult rat dorsal root ganglion and sciatic nerve after peripheral and central axonal injury. *Neurosci. Res.* 56: 314-321.
2. Zhang, H.Y., et al. 2010. Slit1 promotes regenerative neurite outgrowth of adult dorsal root ganglion neurons *in vitro* via binding to the Robo receptor. *J. Chem. Neuroanat.* 39: 256-261.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **robo2 (A-10): sc-376177**, our highly recommended monoclonal alternative to robo2 (H-100).