



Rabbit Anti-Robo3 antibody

SL10744R

Product Name:	Robo3
Chinese Name:	轴突导向受体蛋白3抗体
Alias:	HGPPS; HGPS; RB inhibiting gene 1; Rbig 1; Rbig1; Retinoblastoma inhibiting gene 1; Rig 1; Rig1; Robo 3; Robo3; Robo3 protein; ROBO3_HUMAN; Roundabout axon guidance receptor homolog 3; Roundabout homolog 3; Roundabout like protein 3; Roundabout, axon guidance receptor, homolog 3 (Drosophila); Roundabout-like protein 3.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	146kDa
Cellular localization:	The cell membraneSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Robo3:251-350/1386<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene is a member of the Roundabout (ROBO) gene family that controls neurite outgrowth, growth cone guidance, and axon fasciculation. ROBO proteins are a

subfamily of the immunoglobulin transmembrane receptor superfamily. SLIT proteins 1-3, a family of secreted chemorepellants, are ligands for ROBO proteins and SLIT/ROBO interactions regulate myogenesis, leukocyte migration, kidney morphogenesis, angiogenesis, and vasculogenesis in addition to neurogenesis. This gene, ROBO3, has a putative extracellular domain with five immunoglobulin (Ig)-like loops and three fibronectin (Fn) type III motifs, a transmembrane segment, and a cytoplasmic tail with three conserved signaling motifs: CC0, CC2, and CC3 (CC for conserved cytoplasmic). Unlike other ROBO family members, ROBO3 lacks motif CC1. The ROBO3 gene regulates axonal navigation at the ventral midline of the neural tube. In mouse, loss of Robo3 results in a complete failure of commissural axons to cross the midline throughout the spinal cord and the hindbrain. Mutations ROBO3 result in horizontal gaze palsy with progressive scoliosis (HGPPS); an autosomal recessive disorder characterized by congenital absence of horizontal gaze, progressive scoliosis, and failure of the corticospinal and somatosensory axon tracts to cross the midline in the medulla. Alternative transcript variants have been described but have not been experimentally validated.

Function:

Thought to be involved during neural development in axonal navigation at the ventral midline of the neural tube. In spinal chord development plays a role in guiding commissural axons probably by preventing premature sensitivity to Slit proteins thus inhibiting Slit signaling through ROBO1. Required for hindbrain axon midline crossing.

Subcellular Location:

Membrane; Single-pass type I membrane protein

DISEASE:

Defects in ROBO3 are a cause of familial horizontal gaze palsy with progressive scoliosis (HGPPS) [MIM:607313]. Patients show a medulla where motor and sensory projections appear uncrossed.

Similarity:

Belongs to the immunoglobulin superfamily. ROBO family.
Contains 3 fibronectin type-III domains.
Contains 5 Ig-like C2-type (immunoglobulin-like) domains.

SWISS:

Q96MS0

Gene ID:

64221

Database links:

[Entrez Gene: 489307](#)Dog

[Entrez Gene: 100072287](#)Horse

[Entrez Gene: 64221](#)Human

[Entrez Gene: 19649](#)Mouse

[Entrez Gene: 30770](#)Zebrafish

[Olim: 608630](#)Human

[SwissProt: Q96MS0](#)Human

[SwissProt: Q9Z2I4](#)Mouse

[Unigene: 435621](#)Human

[Unigene: 212826](#)Mouse

[Entrez Gene: 712](#)Human

[Entrez Gene: 713](#)Human

[Entrez Gene: 714](#)Human

[Entrez Gene: 12259](#)Mouse

[Entrez Gene: 12260](#)Mouse

[Entrez Gene: 12262](#)Mouse

[Entrez Gene: 29687](#)Rat

[Entrez Gene: 298566](#)Rat

[Entrez Gene: 362634](#)Rat

[Olim: 120550](#)Human

[Olim: 120570](#)Human

[Olim: 120575](#)Human

[SwissProt: P02745](#)Human

[SwissProt: P02746](#)Human

[SwissProt: P02747](#)Human

[SwissProt: P14106](#)Mouse

[SwissProt: P98086](#)Mouse

[SwissProt: Q02105](#)Mouse

[SwissProt: P31720](#)Rat

[SwissProt: P31721](#)Rat

[SwissProt: P31722](#)Rat

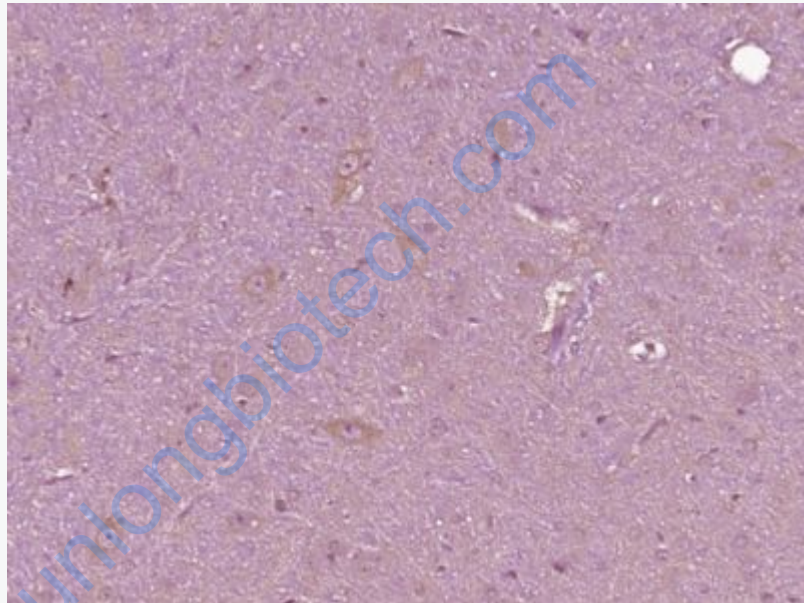
[Unigene: 632379Human](#)

[Unigene: 439957Mouse](#)

[Unigene: 105647Rat](#)

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Robo3) Polyclonal Antibody, Unconjugated (SL10744R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.