

# Rabbit Anti-Repulsive Guidance Molecule B antibody

SL11474R

Product Name:	Repulsive Guidance Molecule B
Chinese Name:	反义导向分子RGMB抗体
Alias:	RGMB; Dragon; DRG11-responsive axonal guidance and outgrowth of neurite; Repulsive Guidance Molecule B; RGM b; RGM domain family member B; Rgmb; RGMB_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Pig, Cow, 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:	40kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Repulsive Guidance Molecule B:58-160/437
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:	The repulsive guidance molecule (RGM) family of proteins are important in the guidance of growth cones of developing neurons. They are repulsive for a group of

axons, those from the temporal half of the retina. RGM have been implicated in both axonal guidance and neural tube closure but as opposed to for ephrins, semaphorins, netrins and slits, no receptor mechanism for RGM activation has been defined. Dorsal root ganglion axons do not respond to RGM but neogenin (a netrin-binding protein which can function as an RGM receptor) expression can spur RGM responsiveness. The RGM proteins are attached to the membrane by a GPI-anchor. Two members of this family, RGMa and RGMb, are expressed in the nervous system. RGMc, also known as Hemojuvelin, is a part of the signaling pathway activating hepcidin and works together with hepcidin to restrict iron absorption in the gut. Defects in the gene encoding for RGMc causes the autosomal recessive disorder juvenile hemochromatosis (JH).

#### **Function:**

Member of the repulsive guidance molecule (RGM) family that contributes to the patterning of the developing nervous system (By similarity). Acts as a bone morphogenetic protein (BMP) coreceptor that potentiates BMP signaling (By similarity). Promotes neuronal adhesion (By similarity). May inhibit neurite outgrowth.

#### Subunit:

Homooligomer (By similarity). Interacts with DRGX (By similarity). Interacts with BMP2 and BMP4 (By similarity). Interacts with the BMP type I receptors ACVR1, BMPR1A and BMPR1B and with the BMP type II receptor ACVR2B

Subcellular Location: Cell membrane; Lipid-anchor, GPI-anchor (By similarity). Membrane raft

**Post-translational modifications:** GPI-anchored.

### Similarity:

Belongs to the repulsive guidance molecule (RGM) family.

## SWISS:

Q6NW40

Gene ID: 85704

Database links:

Entrez Gene: 285704 Human

Entrez Gene: 68799 Mouse

<u>Omim: 612687</u> Human

SwissProt: Q6NW40 Human

SwissProt: Q7TQ33 Mouse
Unigene: 526902 Human
Unigene: 293466 Mouse
Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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