



## Rabbit Anti-RGMA/FITC Conjugated antibody

SL11473R-FITC

<b>Product Name:</b>	Anti-RGMA/FITC
<b>Chinese Name:</b>	FITC标记的反义导向分子RGMA抗体
<b>Alias:</b>	Repulsive guidance molecule A; RGM domain family member A; RGMA; RGMA_HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Pig,Cow,
<b>Applications:</b>	ICC=1:50-200IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	28/50kDa
<b>Cellular localization:</b>	The cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human Repulsive Guidance Molecule A
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	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.
<b>Product Detail:</b>	<b>background:</b> 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 unlike 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 cause the autosomal recessive disorder juvenile hemochromatosis (JH).

**Function:**

Member of the repulsive guidance molecule (RGM) family that performs several functions in the developing and adult nervous system. Regulates cephalic neural tube closure, inhibits neurite outgrowth and cortical neuron branching, and the formation of mature synapses. Binding to its receptor NEO1/neogenin induces activation of RHOA-ROCK1/Rho-kinase signaling pathway through UNC5B-ARHGEF12/LARG-PTK2/FAK1 cascade, leading to collapse of the neuronal growth cone and neurite outgrowth inhibition. Furthermore, RGMa binding to NEO1/neogenin leads to HRAS inactivation by influencing HRAS1-PTK2/FAK1-AKT1 pathway. It also functions as a bone morphogenetic protein (BMP) coreceptor that may signal through SMAD1, SMAD5, and SMAD8.

**Subunit:**

Interacts with NEO1, BMP2 and BMP4

**Subcellular Location:**

Cell membrane; Lipid-anchor, GPI-anchor

**Similarity:**

Belongs to the repulsive guidance molecule (RGM) family.

**Database links:**

[Entrez Gene: 56963](#)Human

[Entrez Gene: 244058](#)Mouse

[Omim: 607362](#)Human

[SwissProt: Q96B86](#)Human

[SwissProt: Q6PCX7](#)Mouse

[Unigene: 271277](#)Human

[Unigene: 333943](#)Mouse

**Important Note:**

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

