

For Research Use Only

RGMA Polyclonal antibody

Catalog Number: 12387-1-AP

Featured Product

2 Publications



Basic Information

Catalog Number: 12387-1-AP	GenBank Accession Number: BC015886	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 700 µg/ml by Nanodrop;	GeneID (NCBI): 56963	Recommended Dilutions: WB 1:500-1:1000 IP 0.5-4.0 ug for IP and 1:200-1:1000 for WB
Source: Rabbit	Full Name: RGM domain family, member A	IHC 1:50-1:500
Isotype: IgG	Calculated MW: 450 aa, 49 kDa	
Immunogen Catalog Number: AG3058	Observed MW: 49 kDa	

Applications

Tested Applications:
IHC, IP, WB, ELISA

Cited Applications:
CoIP, WB

Species Specificity:
human, mouse, rat

Cited Species:
rat, mouse

Positive Controls:

WB: COLO 320 cells, mouse testis tissue, HeLa cells, MOLT-4 cells, U2OS cells, Caco-2 cells, K-562 cells, mouse brain tissue, rat brain tissue

IP: mouse testis tissue,

IHC: human brain tissue,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

RGMA, also named as RGM, is a member of the repulsive guidance molecule (RGM) family that performs several functions in the developing and adult nervous system. It regulates cephalic neural tube closure, inhibits neurite outgrowth and cortical neuron branching, and the formation of mature synapses. RGMA binding to its receptor NEO1/neogenin induces activation of RHOA-ROCK1/Rho-kinase signaling pathway through UNC5B-ARHGEF12/LARG-PTK2 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-AKT1 pathway. It also functions as a bone morphogenetic protein (BMP) coreceptor that may signal through SMAD1, SMAD5, and SMAD8. RGMA is a molecular target for neuroprotection in retinal pathologies (PMID: 20457227). The frequent genetic and epigenetic inactivation of RGMA in CRCs and adenomas along with its in vitro function collectively support its role as a tumor suppressor in colon cells (PMID: 19303019). There're some different MW in WB detection, 30 kDa mature form, 47-50 kDa isoforms and 60 kDa Glycosylated form.

Notable Publications

Author	Pubmed ID	Journal	Application
Min Li	29935233	Brain Res Bull	WB
Mikito Shimizu	37992159	Sci Adv	CoIP

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

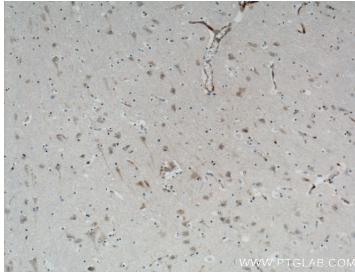
For technical support and original validation data for this product please contact:

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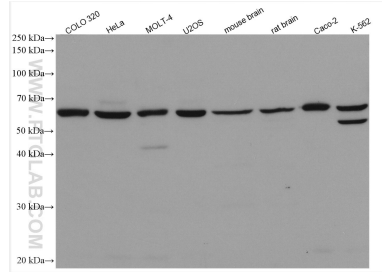
E: proteintech@ptglab.com
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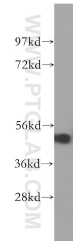
Selected Validation Data



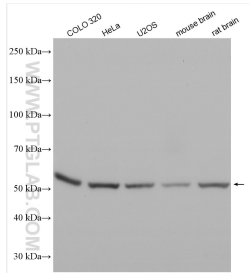
Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 12387-1-AP (RGMA antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



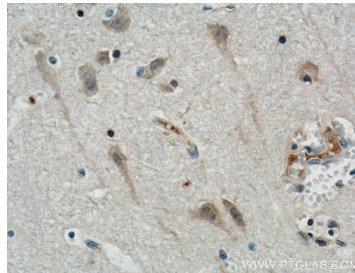
Various lysates were subjected to SDS PAGE followed by western blot with 12387-1-AP (RGMA antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



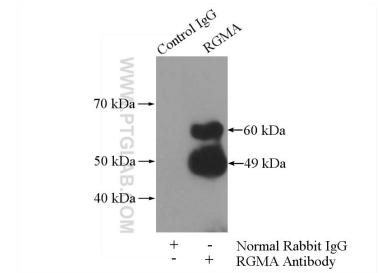
mouse testis tissue were subjected to SDS PAGE followed by western blot with 12387-1-AP (RGMA antibody) at dilution of 1:400 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 12387-1-AP (RGMA antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 12387-1-AP (RGMA antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP Result of anti-RGMA (IP:12387-1-AP, 4ug; Detection:12387-1-AP 1:400) with mouse testis tissue lysate 4000ug.