SunLong Biotech Co.,LTD
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Rabbit Anti-Agrin antibody

SL10219R

Product Name	Agrin
Chinese Name	聚集蛋白抗体
Alias	AGRIN; Agrin proteoglycan; AGRN; FLJ45064; OTTHUMP00000044043; AGRIN_HUMAN; AGRIN_HUMAN.
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse, (predicted: Human, Cow, Sheep,)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	213kDa
Cellular localization	Extracellular matrix Secretory protein
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Agrin: 1151-1245/2045
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	This gene encodes one of several proteins that are critical in the development of the neuromuscular junction (NMJ), as identified in mouse knock-out studies. The encoded protein contains several laminin G, Kazal type serine protease inhibitor, and epidermal

growth factor domains. Additional post-translational modifications occur to add glycosaminoglycans and disulfide bonds. In one family with congenital myasthenic syndrome affecting limb-girdle muscles, a mutation in this gene was found. [provided by RefSeq, Aug 2011]

Function:
Plays a central role in the formation and the maintenance of the neuromuscular junction (NMJ), the synapse between motor neuron and skeletal muscle. Ligand of the MUSK signaling complex that directly binds LRP4 in this complex and induces the phosphorylation of MUSK, the kinase of the complex. The activation of MUSK in myotubes induces the formation of NMJ by regulating different processes including the transcription of specific genes and the clustering of AChR in the postsynaptic membrane.

Subunit:
Interacts with LRP4; the interaction is direct and recruits AGRIN to the MUSK signaling complex composed at least of MUSK and LRP4 (By similarity). Binds to laminin.

Subcellular Location:
Secreted, extracellular space, extracellular matrix. Note=Synaptic basal lamina at the neuromuscular junction.

Tissue Specificity:
Detected on the aortic endothelium (at protein level).

Post-translational modifications:
Contains heparan sulfate chains as well as N-linked and O-linked oligosaccharides. 0-fucosylation of EGF repeat 4 of muscle AGRN by POFUT1 prevents its ability to form AChR clusters.

DISEASE:
Defects in AGRN are a cause of myasthenia, limb-girdle, familial (LGM) [MIM:254300]. A congenital myasthenic syndrome characterized by a typical 'limb girdle' pattern of muscle weakness with small, simplified neuromuscular junctions but normal acetylcholine receptor and acetylcholinesterase function.

Similarity:
Contains 4 EGF-like domains.
Contains 9 Kazal-like domains.
Contains 2 laminin EGF-like domains.
Contains 3 laminin G-like domains.
Contains 1 NtA (N-terminal agrin) domain.
Contains 1 SEA domain.

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SWISS:
O00468

Gene ID:
375790

Database links:

Entrez Gene: 375790 Human

Entrez Gene: 11603 Mouse

Entrez Gene: 25592 Rat

SwissProt: O00468 Human

Omim: 103320 Human

SwissProt: A2ASQ1 Mouse

SwissProt: P25304 Rat

Unigene: 273330 Human

Unigene: 2163 Rat

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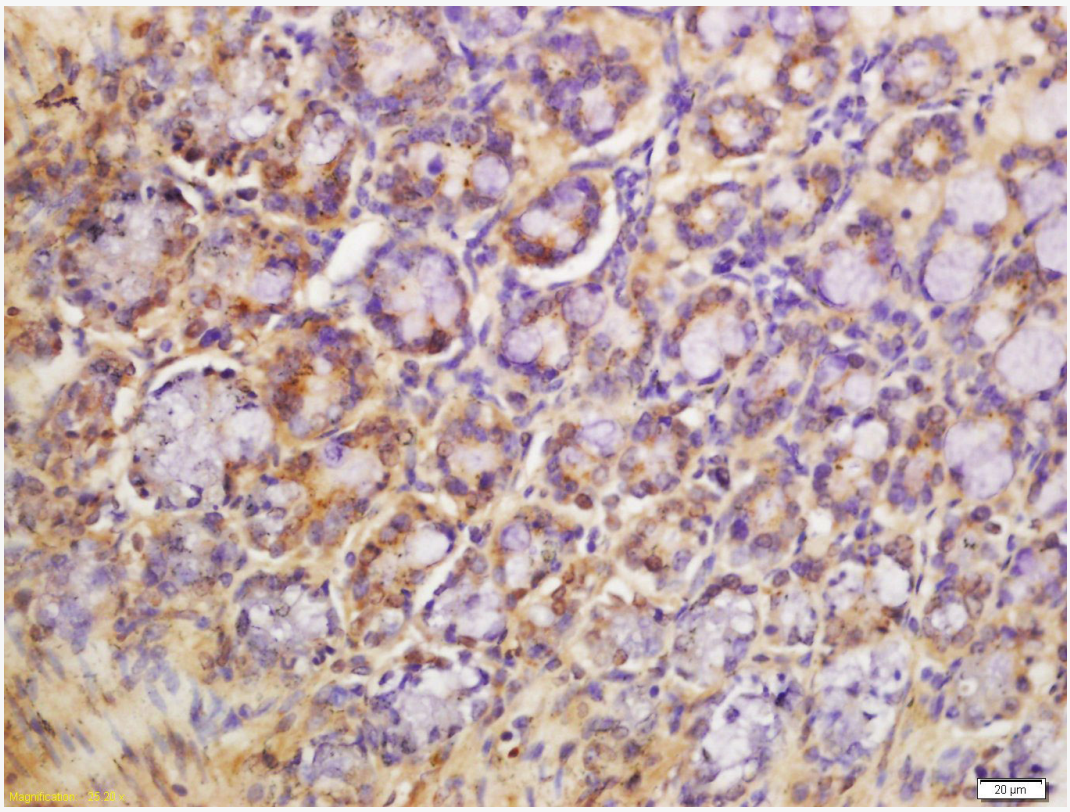
Product Picture



Tissue/cell: mouse colon tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-Agrin Polyclonal Antibody, Unconjugated(SL10219R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining