

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat Agrin in ELISAs and Western blots. In sandwich immunoassays, less than 0.1% cross-reactivity with recombinant rat (rr) GDNF, rrlL-1α, and rrlL-Selectin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant rat Agrin Ala1153-Pro1959 (Pro1788-Ser1798 del) Accession # P25304
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Agrin, a heparan sulfate proteoglycan, is a component of the synaptic basal lamina which promotes acetylcholine receptor (AChR) clustering on cultured myotubes and *in vivo*. This AChR clustering activity has been shown to be mediated via a receptor complex that includes a receptor-like tyrosine kinase specific to the skeletal muscle termed muscle-specific kinase (MuSK), and an as of yet unidentified myotube-specific accessory component.

Agrin contains a number of distinct domains. The N-terminal half of the molecule, which is responsible for the tight interaction with the extracellular matrix, has nine follistatin-like repeats that share homology to Kazal-type protease inhibitor domains. The C-terminal half, which by itself is sufficient for the AChR clustering activity, has four EGF-like repeats and three laminin globular G domains. Agrin exists in several isoforms which are generated by alternative splicing at multiple splicing sites in the C-terminal half. Some of these isoforms are expressed specifically in the nervous system while other isoforms are expressed in both neural and nonneural tissues. Dramatic differences in AChR clustering activities have been observed between the different isoforms. The highest activity is found to be associated with isoforms found exclusively in neural tissues that contain the four amino acids K-S-R-K at position # 1643-1646 and the eight amino acids E-L-T-N-E-I-P-A after Ser1779. Rat and chick Agrin share approximately 60% amino acid sequence identity. R&D Systems recombinant C-terminal half fragment of Agrin is a soluble secreted protein which has been found to have AChR clustering activity on chick myotubes.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.