Rat Agrin Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF550T
100 µg

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, rrIL-1α, and rrL-Selectin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant rat Agrin Ala1153-Pro1959 (Pro1788-Ser1798 del) Accession # P25304
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475