

Agrin (K-17): sc-6166

BACKGROUND

Agrin is a molecule that resides in the basal lamina of muscle cells and directs key events in post synaptic differentiation. Most notably, Agrin is responsible for the clustering of acetylcholine receptors (AChRs) on the cell surface and their localization to the neuromuscular junction. Several Agrin variants have been identified which arise from alternative mRNA splicings. Agrin splice forms having inserts at two sites in the carboxy terminus designated "ψ" and "ζ" display a high affinity for AChRs, while splice forms lacking these inserts associate with AChRs weakly. Muscle α-dystroglycan has been postulated to be the receptor for the clustering activity of agrin; however, this is a point of contention. Tyrosine phosphorylation has been implicated as a required early step in AChR aggregation. Interestingly, a unique receptor tyrosine kinase, designated MuSK, has been discovered that interacts with Agrin and is specifically localized to developing muscle.

CHROMOSOMAL LOCATION

Genetic locus: AGRN (human) mapping to 1p36.33; Agrn (mouse) mapping to 4 E2.

SOURCE

Agrin (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Agrin of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6166 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Agrin (K-17) is recommended for detection of Agrin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Agrin (K-17) is also recommended for detection of Agrin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Agrin siRNA (h): sc-29652, Agrin siRNA (m): sc-29653, Agrin siRNA (r): sc-61875, Agrin shRNA Plasmid (h): sc-29652-SH, Agrin shRNA Plasmid (m): sc-29653-SH, Agrin shRNA Plasmid (r): sc-61875-SH, Agrin shRNA (h) Lentiviral Particles: sc-29652-V, Agrin shRNA (m) Lentiviral Particles: sc-29653-V and Agrin shRNA (r) Lentiviral Particles: sc-61875-V.

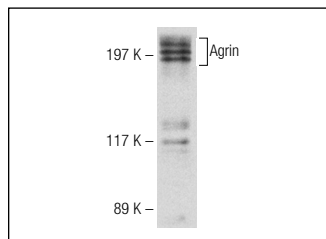
Molecular Weight of Agrin: 200 kDa.

Positive Controls: mouse brain extract: sc-2253 or EOC 20 whole cell lysate: sc-364187.

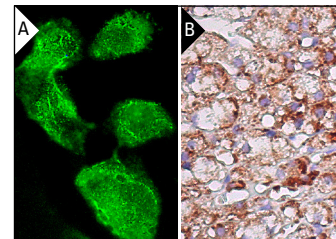
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Agrin (K-17): sc-6166. Western blot analysis of Agrin isoform expression in mouse brain extract.



Agrin (K-17): sc-6166. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Chen, S., et al. 2008. Loss of heparan sulfate glycosaminoglycan assembly in podocytes does not lead to proteinuria. *Kidney Int.* 74: 289-299.
- Terakawa, J., et al. 2009. Agrin pathway is controlled by leukemia inhibitory factor (LIF) in murine implantation. *J. Reprod. Dev.* 55: 293-298.
- Klein-Scory, S., et al. 2010. Immunoscreeing of the extracellular proteome of colorectal cancer cells. *BMC Cancer* 10: 70.
- Kaur, S., et al. 2011. Heparan sulfate modification of the transmembrane receptor CD47 is necessary for inhibition of T cell receptor signaling by thrombospondin-1. *J. Biol. Chem.* 286: 14991-15002.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **Agrin (D-2): sc-374117**, our highly recommended monoclonal alternative to Agrin (K-17). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Agrin (D-2): sc-374117**.