

Aftiphilin (N-16): sc-167054

BACKGROUND

Aftiphilin (AFTPH) is a 937 amino acid cytoplasmic protein involved in membrane trafficking. Aftiphilin is expressed predominantly in brain and colocalizes at synapses with synaptophysin and AP-2. Aftiphilin also co-localizes with 1-Adaptin and clathrin, and contains eight γ -ear-binding motifs, two WXXF-acidic motifs and three FXXFXX/L motifs. Aftiphilin's WXXF motifs mediate the binding of accessory proteins to the ear domains of AP-1, AP-2 and GGAs via hydrophobic interactions. Aftiphilin interacts with the GAE domains of 1-Adaptin, γ 2-Adaptin, GGA1 and GGA3. Five Aftiphilin isoforms exist as a result of alternative splicing events, and Aftiphilin is encoded by a gene mapping to human chromosome 2p14. As the second largest human chromosome, chromosome 2 consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome.

REFERENCES

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2. Ritter, B., et al. 2004. Two WXXF-based motifs in NECAPs define the specificity of accessory protein binding to AP-1 and AP-2. *EMBO J.* 23: 3701-3710.
3. Mattera, R., et al. 2004. Definition of the consensus motif recognized by γ -Adaptin ear domains. *J. Biol. Chem.* 279: 8018-8028.
4. Burman, J.L., et al. 2005. Aftiphilin is a component of the clathrin machinery in neurons. *FEBS Lett.* 579: 2177-2184.
5. Hirst, J., et al. 2005. The Aftiphilin/p200/ γ -synergin complex. *Mol. Biol. Cell* 16: 2554-2565.
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CHROMOSOMAL LOCATION

Genetic locus: AFTPH (human) mapping to 2p14; Aftph (mouse) mapping to 11 A3.1.

SOURCE

Aftiphilin (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Aftiphilin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-167054 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Aftiphilin (N-16) is recommended for detection of Aftiphilin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Aftiphilin siRNA (h): sc-94965, Aftiphilin siRNA (m): sc-140901, Aftiphilin shRNA Plasmid (h): sc-94965-SH, Aftiphilin shRNA Plasmid (m): sc-140901-SH, Aftiphilin shRNA (h) Lentiviral Particles: sc-94965-V and Aftiphilin shRNA (m) Lentiviral Particles: sc-140901-V.

Molecular Weight of Aftiphilin: 102 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.