

Aftiphilin (P-20): sc-167055

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 γ 1-Adaptin and clathrin, and contains eight γ -ear-binding motifs, two WXXF-acidic motifs and three FXXFXXF/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 γ 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 (P-20) 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-167055 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 (P-20) 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), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Aftiphilin (P-20) is also recommended for detection of Aftiphilin in additional species, including equine, canine, bovine and porcine.

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.

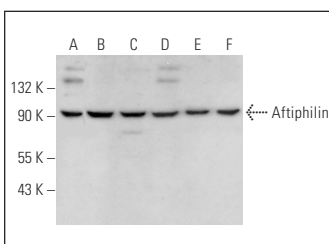
Molecular Weight of Aftiphilin: 102 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Aftiphilin (P-20): sc-167055. Western blot analysis of Aftiphilin expression in MCF7 (A), Jurkat (B), K-562 (C), Hep G2 (D), MDA-MB-231 (E) and MDA-MB-468 (F) whole cell lysates.

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.