

α -Adaptin 1 (F-9): sc-398016

BACKGROUND

Clathrin-coated pits and vesicles are assembled for receptor-mediated endocytosis through interaction with Clathrin associated protein complexes. Vesicle transport is mediated from the *trans*-Golgi network by the adapter complex AP-1 and from the plasma membrane by the AP-2 complex. The AP-1 and AP-2 adapter protein complexes consist of Clathrin binding Adaptin proteins (γ -Adaptin and β -Adaptin for AP-1; α -Adaptin 1, α -Adaptin 2 and β 2-Adaptin for AP-2) and two smaller subunits known as AP50 and AP17. The α - and β -Adaptin chains have a similar two-domain organization with C-terminal domains that vary in both sequence and length. α -Adaptin splice variants A and C display variable relative expression levels and differential distribution in different tissues. AP180 (also designated AP-3 or F1-20) is a synapse-specific Clathrin assembly protein. The protein CALM (clathrin assembly protein lymphoid myeloid leukemia) is highly homologous to AP180 and may also be involved in Clathrin assembly.

CHROMOSOMAL LOCATION

Genetic locus: AP2A1 (human) mapping to 19q13.33; Ap2a1 (mouse) mapping to 7 B4.

SOURCE

α -Adaptin 1 (F-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 952-977 at the C-terminus of α -Adaptin 1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398016 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

α -Adaptin 1 (F-9) is recommended for detection of α -Adaptin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

α -Adaptin 1 (F-9) is also recommended for detection of α -Adaptin 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for α -Adaptin 1 siRNA (h): sc-29608, α -Adaptin 1 siRNA (m): sc-29609, α -Adaptin 1 shRNA Plasmid (h): sc-29608-SH, α -Adaptin 1 shRNA Plasmid (m): sc-29609-SH, α -Adaptin 1 shRNA (h) Lentiviral Particles: sc-29608-V and α -Adaptin 1 shRNA (m) Lentiviral Particles: sc-29609-V.

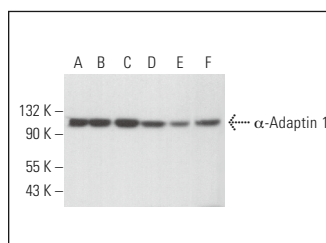
Molecular Weight of α -Adaptin 1: 100 kDa.

Positive Controls: F9 cell lysate: sc-2245, Neuro-2A whole cell lysate: sc-364185 or MCF7 whole cell lysate: sc-2206.

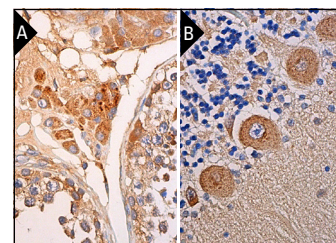
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



α -Adaptin 1 (F-9): sc-398016. Western blot analysis of α -Adaptin 1 expression in F9 (A), Neuro-2A (B), MCF7 (C), SW480 (D), IMR-32 (E) and C6 (F) whole cell lysates.



α -Adaptin 1 (F-9): sc-398016. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells (B).

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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



See **α -Adaptin 1/2 (C-8): sc-17771** for α -Adaptin 1/2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.