

β2-Adaptin (A-22): sc-130925

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 and $\beta 1$ for AP-1, α and $\beta 2$ 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.

REFERENCES

- Robinson, M.S. 1989. Cloning of cDNAs encoding two related 100 kDa coated vesicle proteins (α -Adaptins). *J. Cell Biol.* 108: 833-842.
- Kirchhausen, T., et al. 1989. Structural and functional division into two domains of the large (100 to 115 kDa) chains of the clathrin-associated protein complex AP-2. *Proc. Natl. Acad. Sci. USA* 86: 2612-2616.
- Robinson, M.S. 1990. Cloning and expression of γ -Adaptin, a component of clathrin-coated vesicles associated with the Golgi apparatus. *J. Cell Biol.* 111: 2319-2326.
- Ponnambalam, S., et al. 1990. Conservation and diversity in families of coated vesicle adaptins. *J. Biol. Chem.* 265: 4814-4820.
- Morris, S.A., et al. 1993. Clathrin assembly protein AP180: primary structure, domain organization and identification of a clathrin binding site. *EMBO J.* 12: 667-675.

CHROMOSOMAL LOCATION

Genetic locus: AP2B1 (human) mapping to 17q12; Ap2b1 (mouse) mapping to 11 C.

SOURCE

β2-Adaptin (A-22) is an affinity purified rabbit polyclonal antibody raised against synthetic β2-Adaptin peptide of human origin.

PRODUCT

Each vial contains 50 μg IgG in 500 μl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

β2-Adaptin (A-22) is recommended for detection of β2-Adaptin 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for β2-Adaptin siRNA (h): sc-105005, β2-Adaptin siRNA (m): sc-29639, β2-Adaptin shRNA Plasmid (h): sc-105005-SH, β2-Adaptin shRNA Plasmid (m): sc-29639-SH, β2-Adaptin shRNA (h) Lentiviral Particles: sc-105005-V and β2-Adaptin shRNA (m) Lentiviral Particles: sc-29639-V.

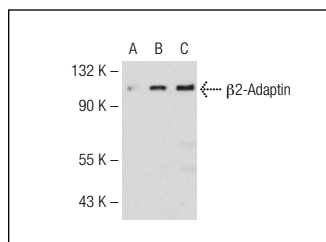
Molecular Weight of β2-Adaptin: 106 kDa.

Positive Controls: β2-Adaptin (h): 293T Lysate: sc-172440, HeLa whole cell lysate: sc-2200 or human fetal liver tissue.

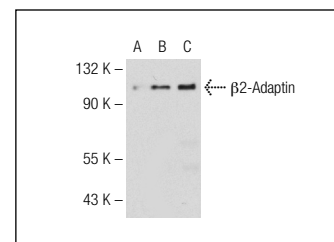
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



β2-Adaptin (A-22): sc-130925. Western blot analysis of β2-Adaptin expression in non-transfected 293T: sc-117752 (A), human β2-Adaptin transfected 293T: sc-172708 (B) and HeLa (C) whole cell lysates.



β2-Adaptin (A-22): sc-130925. Western blot analysis of β2-Adaptin expression in non-transfected 293T: sc-117752 (A), human β2-Adaptin transfected 293T: sc-172440 (B) and HeLa (C) whole cell lysates.

RESEARCH USE

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



Try **β-Adaptin (A-5): sc-74423**, our highly recommended monoclonal alternative to β2-Adaptin (A-22).