β-Adaptin (A-5): sc-74423

**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 β1 for AP-1, α and β2 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**


**CHROMOSOMAL LOCATION**

Genetic locus: AP1B1 (human) mapping to 22q12.2, AP2B1 (human) mapping to 17q12; Ap1b1 (mouse) mapping to 11 A1, Ap2b1 (mouse) mapping to 11 C.

**SOURCE**

β-Adaptin (A-5) is a mouse monoclonal antibody raised against amino acids 650-949 of β-Adaptin of human origin.

**PRODUCT**

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

**APPLICATIONS**

β-Adaptin (A-5) is recommended for detection of β1-Adaptin and β2-Adaptin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 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).

Molecular Weight of β-Adaptin: 106 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG δ-HP: sc-516102 or m-IgG δ-HP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgG δ-PE: sc-516140 or m-IgG δ-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz Mounting Medium: sc-24941 or UltraCruz Hard-set Mounting Medium: sc-359850.

**DATA**

β-Adaptin (A-5): sc-74423. Western blot analysis of β-Adaptin expression in HeLa [A], K-562 [B], Jurkat [C], CEM/10712 (D), NIH/3T3 (E) and GB (F) whole cell lysates.


**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 website at www.scbt.com for detailed protocols and support products.