

# β-Adaptin (H-300): sc-10762

## 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 ( $\gamma$  and  $\beta 1$  for AP-1,  $\alpha$  and  $\beta 2$  for AP-2) and two smaller subunits known as AP50 and AP17. The  $\alpha$  and  $\beta$  adaptin chains have a similar two-domain organization with C-terminal domains that vary in both sequence and length.  $\alpha$ -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: 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 (H-300) is a rabbit polyclonal antibody raised against amino acids 650-949 of β1-Adaptin of human origin.

## PRODUCT

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

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

β-Adaptin (H-300) is recommended for detection of β1- and 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)], 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).

β-Adaptin (H-300) is also recommended for detection of β1- and β2-Adaptin in additional species, including equine, canine, bovine and porcine.

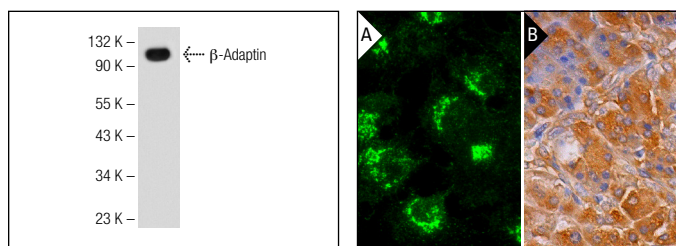
Molecular Weight of β-Adaptin: 106 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, A-431 whole cell lysate: sc-2201 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 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



β-Adaptin (H-300): sc-10762. Western blot analysis of β-Adaptin expression in K-562 whole cell lysate.

β-Adaptin (H-300): sc-10762. Immunofluorescence staining of formalin-fixed Hep G2 cells showing Golgi apparatus localization. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells.

## SELECT PRODUCT CITATIONS

- Schneider-Brachert, W., et al. 2006. Inhibition of TNF receptor 1 internalization by adenovirus 14.7K as a novel immune escape mechanism. *J. Clin. Invest.* 116: 2901-2913.
- Pagano, M., et al. 2009. Insights into the residence in lipid rafts of adenylyl cyclase AC8 and its regulation by capacitative calcium entry. *Am. J. Physiol., Cell Physiol.* 296: C607-C619.

## RESEARCH USE

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

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Try **β-Adaptin (A-5): sc-74423** or **β-Adaptin (100/1): sc-58226**, our highly recommended monoclonal alternatives to β-Adaptin (H-300).