

# $\gamma$ 1-Adaptin (F-10): sc-398867

## 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.

## REFERENCES

1. 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.
2. Robinson, M.S. 1989. Cloning of cDNAs encoding two related 100-kD coated vesicle proteins ( $\alpha$ -Adaptins). *J. Cell Biol.* 108: 833-842.

## CHROMOSOMAL LOCATION

Genetic locus: AP1G1 (human) mapping to 16q22.2; Ap1g1 (mouse) mapping to 8 D3.

## SOURCE

$\gamma$ 1-Adaptin (F-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 5-27 at the N-terminus of  $\gamma$ 1-Adaptin of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

$\gamma$ 1-Adaptin (F-10) is available conjugated to agarose (sc-398867 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398867 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398867 PE), fluorescein (sc-398867 FITC), Alexa Fluor<sup>®</sup> 488 (sc-398867 AF488), Alexa Fluor<sup>®</sup> 546 (sc-398867 AF546), Alexa Fluor<sup>®</sup> 594 (sc-398867 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-398867 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-398867 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-398867 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398867 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## APPLICATIONS

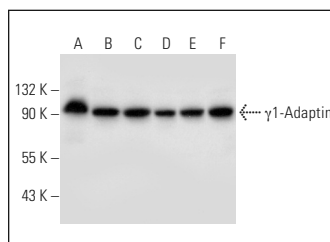
$\gamma$ 1-Adaptin (F-10) is recommended for detection of  $\gamma$ 1-Adaptin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for  $\gamma$ 1-Adaptin siRNA (h): sc-29578,  $\gamma$ 1-Adaptin siRNA (m): sc-29579,  $\gamma$ 1-Adaptin shRNA Plasmid (h): sc-29578-SH,  $\gamma$ 1-Adaptin shRNA Plasmid (m): sc-29579-SH,  $\gamma$ 1-Adaptin shRNA (h) Lentiviral Particles: sc-29578-V and  $\gamma$ 1-Adaptin shRNA (m) Lentiviral Particles: sc-29579-V.

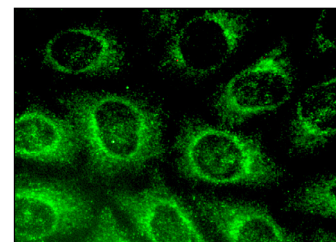
Molecular Weight of  $\gamma$ 1-Adaptin: 91 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

## DATA



$\gamma$ 1-Adaptin (F-10): sc-398867. Western blot analysis of  $\gamma$ 1-Adaptin expression in PC-12 (A), BC<sub>3</sub>H1 (B), HISM (C), Ramos (D), HeLa (E) and Hep G2 (F) whole cell lysates.



$\gamma$ 1-Adaptin (F-10): sc-398867. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Tao, X., et al. 2017. AP1G1 is involved in cetuximab-mediated downregulation of ASCT2-EGFR complex and sensitization of human head and neck squamous cell carcinoma cells to ROS-induced apoptosis. *Cancer Lett.* 408: 33-42.
2. Saila, S., et al. 2020. The host GTPase ARF1 and its effectors AP1 and PICK1 stimulate Actin polymerization and exocytosis to promote entry of *Listeria monocytogenes*. *Infect. Immun.* 88: e00578-19.
3. Meng, D., et al. 2021. ArfGAP1 inhibits mTORC1 lysosomal localization and activation. *EMBO J.* 40: e106412.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.