

α -Adaptin 1/2 (M-300): sc-10761

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, AP2A2 (human) mapping to 11p15.5; Ap2a1 (mouse) mapping to 7 B4, Ap2a2 (mouse) mapping to 7 F5.

SOURCE

α -Adaptin 1/2 (M-300) is a rabbit polyclonal antibody raised against amino acids 678-938 mapping at the C-terminus of α -Adaptin 2 of mouse origin.

PRODUCT

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

APPLICATIONS

α -Adaptin 1/2 (M-300) is recommended for detection of α -Adaptin 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

α -Adaptin 1/2 (M-300) is also recommended for detection of α -Adaptin 1 and 2 in additional species, including canine and bovine.

Suitable for use as control antibody for α -Adaptin 1/2 siRNA (h): sc-29610, α -Adaptin 1/2 siRNA (m): sc-43506, α -Adaptin 1/2 shRNA Plasmid (h): sc-29610-SH, α -Adaptin 1/2 shRNA Plasmid (m): sc-43506-SH, α -Adaptin 1/2 shRNA (h) Lentiviral Particles: sc-29610-V and α -Adaptin 1/2 shRNA (m) Lentiviral Particles: sc-43506-V.

Molecular Weight of α -Adaptin 1/2: 100 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, NIH/3T3 whole cell lysate: sc-2210 or Hep G2 cell lysate: sc-2227.

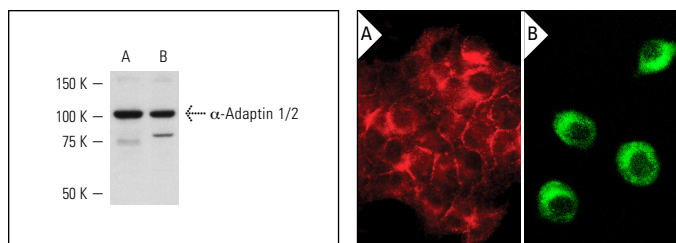
STORAGE

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.

DATA



α -Adaptin 1/2 (M-300): sc-10761. Western blot analysis of α -Adaptin 1/2 expression in KNRK (A) and Hep G2 (B) whole cell lysates.

α -Adaptin 1/2 (M-300): sc-10761. Immunofluorescence staining of methanol-fixed HeLa (A) and KNRK (B) cells showing membrane localization.

SELECT PRODUCT CITATIONS

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- Daniels, M.A., et al. 2006. Thymic selection threshold defined by compartmentalization of Ras/MAPK signalling. *Nature* 444: 724-729.
- Boularan, C., et al. 2007. β -arrestin-2 oligomerization controls the Mdm2-dependent inhibition of p53. *Proc. Natl. Acad. Sci. USA* 104: 18061-18066.
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- Molla-Herman, A., et al. 2008. Targeting of β -arrestin-2 to the centrosome and primary cilium: role in cell proliferation control. *PLoS ONE* 3: e3728.
- Barroso-Gonzalez, J., et al. 2009. Moesin regulates the trafficking of nascent clathrin-coated vesicles. *J. Biol. Chem.* 284: 2419-2434.
- Molla-Herman, A., et al. 2010. The ciliary pocket: an endocytic membrane domain at the base of primary and motile cilia. *J. Cell Sci.* 123: 1785-1795.
- Gildea, J.J., et al. 2011. Inhibition of renal caveolin-1 reduces natriuresis and produces hypertension in sodium-loaded rats. *Am. J. Physiol. Renal Physiol.* 300: F914-F920.
- Cunningham, D.L., et al. 2013. Novel binding partners and differentially regulated phosphorylation sites clarify Eps8 as a multi-functional adaptor. *PLoS ONE* 8: e61513.



Try **α -Adaptin 1/2 (C-8): sc-17771** or **α -Adaptin 1/2 (AP6): sc-32284**, our highly recommended monoclonal alternatives to α -Adaptin 1/2 (M-300). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **α -Adaptin 1/2 (C-8): sc-17771**.