SANTA CRUZ BIOTECHNOLOGY, INC.

AP1AR (C-6): sc-398565

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

AP1AR (AP-1 complex-associated regulatory protein), also known as γ1-Adaptin brefeldin A resistance protein (γ-BAR) or C4orf16, is a 302 amino acid protein essential to the c-Fos dependent transport between the *trans*-Golgi network and endosomes. AP1AR also regulates the membrane association of γ1-Adaptin, a subunit of the c-Fos adapter complex. The coiled-coil domain of AP1AR interacts directly with the GAE domain of γ1-Adaptin, which causes the release of the c-Fos complex from membranes. The gene that encodes AP1AR maps to human chromosome 4, which represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is on chromosome 4. FGFR-3 is also encoded on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease. Chromosome 4 reportedly contains the largest gene deserts (regions of the genome with no protein encoding genes) and has one of the two lowest recombination frequencies of the human chromosomes.

REFERENCES

1. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
2. Cowan, C.M. and Raymond, L.A. 2006. Selective neuronal degeneration in Huntington's disease. Curr. Top. Dev. Biol. 75: 25-71.
3. Chandler, R.J., et al. 2007. Metabolic phenotype of methylmalonic acidemia in mice and humans: the role of skeletal muscle. BMC Med. Genet. 8: 64.
4. Cunningham, M.L., et al. 2007. Syndromic craniosynostosis: from history to hydrogen bonds. Orthod. Craniofac. Res. 10: 67-81.

CHROMOSOMAL LOCATION

Genetic locus: AP1AR (human) mapping to 4q25; Ap1ar (mouse) mapping to 3 G2.

SOURCE

AP1AR (C-6) is a mouse monoclonal antibody raised against amino acids 131-302 mapping at the C-terminus of AP1AR of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AP1AR (C-6) is available conjugated to agarose (sc-398565 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398565 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398565 PE), fluorescein (sc-398565 FITC), Alexa Fluor® 488 (sc-398565 AF488), Alexa Fluor® 546 (sc-398565 AF546), Alexa Fluor® 594 (sc-398565 AF594) or Alexa Fluor® 647 (sc-398565 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398565 AF680) or Alexa Fluor® 790 (sc-398565 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

AP1AR (C-6) is recommended for detection of AP1AR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for AP1AR siRNA (h): sc-89134, AP1AR siRNA (m): sc-141484, AP1AR shRNA Plasmid (h): sc-89134-SH, AP1AR shRNA Plasmid (m): sc-141484-SH, AP1AR shRNA (h) Lentiviral Particles: sc-89134-V and AP1AR shRNA (m) Lentiviral Particles: sc-141484-V.

Moleuclar Weight (predicted) of AP1AR: 34 kDa.

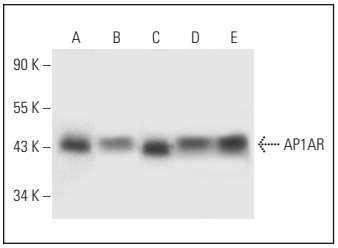
Moleuclar Weight (observed) of AP1AR: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or human cervix extract: sc-363756.

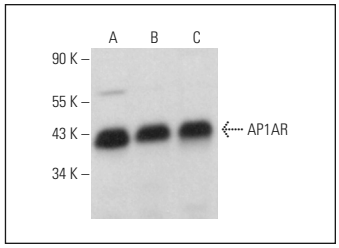
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



AP1AR (C-6): sc-398565. Western blot analysis of AP1AR expression in HeLa (**A**), AN3 CA (**B**), Jurkat (**C**) and Ca Ski (**D**) whole cell lysates and human cervix tissue extract (**E**).



AP1AR (C-6): sc-398565. Western blot analysis of AP1AR expression in RAW 264.7 (**A**), 3T3-L1 (**B**) and KNRK (**C**) 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.