

# AP1AR (S-15): sc-163909

## BACKGROUND

AP1AR (AP-1 complex-associated regulatory protein), also known as  $\gamma$ -1-adaptin brefeldin A resistance protein ( $\gamma$ -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  $\gamma$ 1-adaptin, a subunit of the c-Fos adapter complex. The coiled-coil domain of AP1AR interacts directly with the GAE domain of  $\gamma$ 1-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 Huntington 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

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## CHROMOSOMAL LOCATION

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

## SOURCE

AP1AR (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of AP1AR of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-163909 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

AP1AR (S-15) is recommended for detection of AP1AR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other C4orf family members.

AP1AR (S-15) is also recommended for detection of AP1AR in additional species, including equine, canine, bovine, porcine and avian.

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.

Molecular Weight (predicted) of AP1AR: 34 kDa.

Molecular Weight (observed) of AP1AR: 45 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

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