ARL6IP6 (E-13): sc-169961



The Power to Question

BACKGROUND

ARL6IP6 (ADP-ribosylation-like factor 6 interacting protein 6), also known as PFAAP1 (phosphonoformate immuno-associated protein 1), is a 226 amino acid multi-pass membrane protein that belongs to the ARL6IP6 family and is encoded by a gene that maps to human chromosome 2q23.3. A 2q23.3 novel microdeletion involving seven genes, including ARL6IP6, is linked to a proposed 2q23q24 microdeletion syndrome. Additional chromosome 2q deletions, which also include ARL6IP6, are linked to autism, developmental delays and communication impairment. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. Chromosome 2 contains a probable vestigial second centromere, as well as vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 formed as a result of an ancient fusion of two ancestral chromosomes, which are still present in modern day apes.

REFERENCES

- Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. Proc. Natl. Acad. Sci. USA 88: 9051-9055.
- Avarello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. Hum. Genet. 89: 247-249.
- 3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
- 4. Moe, M., et al. 2007. Gene expression profiles in testis of pigs with extreme high and low levels of androstenone. BMC Genomics 8: 405.
- Benjamin, E.J., et al. 2007. Genome-wide association with select biomarker traits in the Framingham Heart Study. BMC Med. Genet. 8: S11.
- Newbury, D.F., et al. 2009. Mapping of partially overlapping *de novo* deletions across an autism susceptibility region (AUTS5) in two unrelated individuals affected by developmental delays with communication impairment. Am. J. Med. Genet. A. 149A: 588-597.
- 7. Lybaek, H., et al. 2009. An 8.9 Mb 19p13 duplication associated with precocious puberty and a sporadic 3.9 Mb 2q23.3q24.1 deletion containing NR4A2 in mentally retarded members of a family with an intrachromosomal 19p-into-19q between-arm insertion. Eur. J. Hum. Genet. 17: 904-910.

CHROMOSOMAL LOCATION

Genetic locus: ARL6IP6 (human) mapping to 2q23.3; Arl6ip6 (mouse) mapping to 2 C1.1.

SOURCE

ARL6IP6 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARL6IP6 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-169961 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARL6IP6 (E-13) is recommended for detection of ARL6IP6 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 ARL6IP4.

ARL6IP6 (E-13) is also recommended for detection of ARL6IP6 in additional species, including equine and bovine.

Suitable for use as control antibody for ARL6IP6 siRNA (h): sc-94709, ARL6IP6 siRNA (m): sc-141247, ARL6IP6 shRNA Plasmid (h): sc-94709-SH, ARL6IP6 shRNA Plasmid (m): sc-141247-SH, ARL6IP6 shRNA (h) Lentiviral Particles: sc-94709-V and ARL6IP6 shRNA (m) Lentiviral Particles: sc-141247-V.

Molecular Weight of ARL6IP6: 25 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ 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 or our catalog for detailed protocols and support products.

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