

ARHGAP40 (C-15): sc-85455

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP40 (Rho GTPase activating protein 40) is a 622 amino acid protein that contains one Rho-GAP domain and is encoded by a gene that maps to human chromosome 20q11.23. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes which are thought to be important for seminal production and may be potential targets for male contraception.

REFERENCES

1. Peck, J., et al. 2002. Human RhoGAP domain-containing proteins: structure, function and evolutionary relationships. *FEBS Lett.* 528: 27-34.
2. Ville, D., et al. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.
3. Joó, J.G., et al. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. *J. Reprod. Med.* 51: 209-212.
4. Fulbright, R.K., et al. 2006. The imaging appearance of Creutzfeldt-Jakob disease caused by the E200K mutation. *Magn. Reson. Imaging.* 24: 1121-1129.
5. Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. *Asian J. Androl.* 9: 540-544.
6. Robert, M.L., et al. 2007. Alagille syndrome with deletion 20p12.2-p12.3 and hypoplastic left heart. *Clin. Dysmorphol.* 16: 241-246.
7. Elghezal, H., et al. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4-KCNQ2 genes loci. *Eur. J. Med. Genet.* 50: 441-445.
8. O'Rand, M.G., et al. 2007. Eppin: an epididymal protease inhibitor and a target for male contraception. *Soc. Reprod. Fertil. Suppl.* 63: 445-453.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP40 (human) mapping to 20q11.23; Arhgap40 (mouse) mapping to 2 H1.

SOURCE

ARHGAP40 (C-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of ARHGAP40 of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85455 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARHGAP40 (C-15) is recommended for detection of ARHGAP40 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).

ARHGAP40 (C-15) is also recommended for detection of ARHGAP40 in additional species, including equine.

Suitable for use as control antibody for ARHGAP40 siRNA (h): sc-72750, ARHGAP40 siRNA (m): sc-141880, ARHGAP40 shRNA Plasmid (h): sc-72750-SH, ARHGAP40 shRNA Plasmid (m): sc-141880-SH, ARHGAP40 shRNA (h) Lentiviral Particles: sc-72750-V and ARHGAP40 shRNA (m) Lentiviral Particles: sc-141880-V.

Molecular Weight of ARHGAP40: 67 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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