SANTA CRUZ BIOTECHNOLOGY, INC.

FAHD2A/B (C-13): sc-167772

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The FAH family contains two highly homologous 314 amino acid proteins, designated FAHD2A (fumarylacetoacetate hydrolase domain-containing protein 2A) and FAHD2B (fumarylacetoacetate hydrolase domain-containing protein 2B). FAHD2A and FAHD2B utilize calcium and magnesium as cofactors, and may possess hydrolase activity. The genes encoding FAHD2A/B map to human chromosome 2, the second largest human chromosome, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is also associated with mutations to chromosome 2.

REFERENCES

1. Baldini, A., et al. 1993. An alphoid DNA sequence conserved in all human and great ape chromosomes: evidence for ancient centromeric sequences at human chromosomal regions 2q21 and 9q13. Hum. Genet. 90: 577-583.
2. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. J. Clin. Invest. 102: 1041-1044.
3. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. J. Med. Genet. 37: E8.
4. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
5. Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. Nat. Genet. 31: 79-83.
6. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
7. Horvath, J.E., et al 2005. Punctuated duplication seeding events during the evolution of human chromosome 2p11. Genome Res. 15: 914-927.

CHROMOSOMAL LOCATION

Genetic locus: FAHD2A (human) mapping to 2q11.1, FAHD2B (human) mapping to 2q11.2; Fahd2a (mouse) mapping to 2 F1.

SOURCE

FAHD2A/B (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FAHD2A of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-167772 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAHD2A/B (C-13) is recommended for detection of FAHD2A of mouse, rat, and human origin; and FAHD2B of human origin by Western Blotting (starting dilution 1:200, 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).

FAHD2A/B (C-13) is also recommended for detection of FAHD2A and FAHD2B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FAHD2A siRNA (m): sc-145007, FAHD2A shRNA Plasmid (m): sc-145007-SH and FAHD2A shRNA (m) Lentiviral Particles: sc-145007-V.

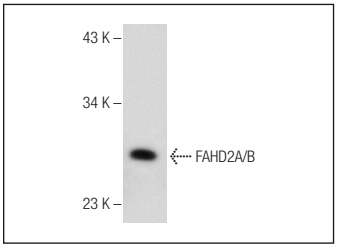
Molecular Weight of FAHD2A/B: 35 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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™ Mounting Medium: sc-24941.

DATA



FAHD2A/B (C-13): sc-167772. Western blot analysis of FAHD2A/B expression in WEHI-231 whole cell lysate.

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.