SANTA CRUZ BIOTECHNOLOGY, INC.

FUCA2 (M-20): sc-167929

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FUCA2 (fucosidase, α-L-2, plasma), also known as α-L-fucosidase 2, is a 467 amino acid secreted protein that exists as a homotetramer and localizes specifically to plasma (unlike FUCA1 which is specific to tissues). Belonging to the glycosyl hydrolase family, FUCA2 functions to catalyze the H_2O-dependent conversion of an α-L-fucoside to an alcohol. Specifically, FUCA2 hydrolyzes the α-1,6-linked fucose that is joined to the N-acetylglucosamine residue of target glycoproteins, thereby yielding L-fucose and alcohol. As FUCA2 is responsible for regulating the amount of α-L-fucosidase within plasma, defects in the gene encoding FUCA2 that cause a loss of catalytic activity may lead to a decrease in α-L-fucosidase levels and, ultimately, fucosidosis. Fucosidosis is a very rare autosomal recessive glycoprotein storage disease that is characterized by organomegaly, mental retardation and twisted blood vessels.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Fuca2 (mouse) mapping to 10 A2.

SOURCE

FUCA2 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FUCA2 of mouse 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-167929 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FUCA2 (M-20) is recommended for detection of FUCA2 of mouse and rat 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); non cross-reactive with FUCA1.

Suitable for use as control antibody for FUCA2 siRNA (m): sc-145268, FUCA2 shRNA Plasmid (m): sc-145268-SH and FUCA2 shRNA (m) Lentiviral Particles: sc-145268-V.

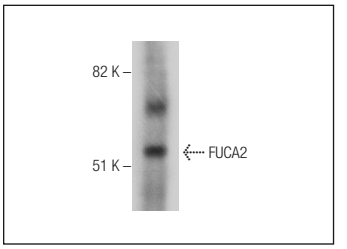
Molecular Weight of FUCA2: 55 kDa.

Positive Controls: mouse heart extract: sc-2254.

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



FUCA2 (M-20): sc-167929. Western blot analysis of FUCA2 expression in mouse heart tissue extract.

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.