

FUCA2 (V-23): sc-130759

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 H₂O-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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3. O'Brien, J.S., et al. 1987. Molecular biology of the α -L-fucosidase gene and fucosidosis. *Enzyme* 38: 45-53.
4. Carritt, B. and Welch, H.M. 1987. An α -fucosidase pseudogene on human chromosome 2. *Hum. Genet.* 75: 248-250.
5. Alhadeff, J.A., et al. 1999. Characterization of human semen α -L-fucosidases. *Mol. Hum. Reprod.* 5: 809-815.
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CHROMOSOMAL LOCATION

Genetic locus: FUCA2 (human) mapping to 6q24.2.

SOURCE

FUCA2 (V-23) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of FUCA2 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

FUCA2 (V-23) is recommended for detection of FUCA2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

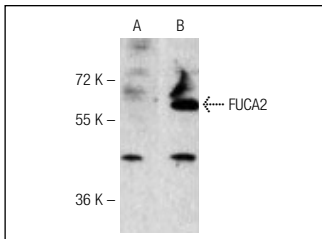
Suitable for use as control antibody for FUCA2 siRNA (h): sc-95549, FUCA2 shRNA Plasmid (h): sc-95549-SH and FUCA2 shRNA (h) Lentiviral Particles: sc-95549-V.

Molecular Weight of FUCA2: 55 kDa.

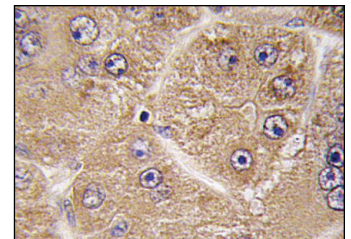
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



FUCA2 (V-23): sc-130759. Western blot analysis of FUCA2 expression in non-transfected (A) and human FUCA2 transfected (B) 293 whole cell lysates.



FUCA2 (V-23): sc-130759. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human hepatocarcinoma tissue showing cytoplasmic localization.

RESEARCH USE

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

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Try **FUCA2 (B-11): sc-514038**, our highly recommended monoclonal alternative to FUCA2 (V-23).