**BACKGROUND**

FUCA1 (fucosidase, \( \alpha \)-L-1, tissue) is a 466 amino acid membrane- and seminal-associated isozyme that is a member of the glycosyl hydrolase 29 family. FUCA1 functions as a homotetramer and is responsible for hydrolyzing and reducing the carbohydrate moieties of glycoproteins in various tissues. Defects in the gene encoding FUCA1 result in fucosidosis, an autosomal recessive disorder caused by an accumulation of fucose-containing glycolipids and glycoproteins. Fucosidosis, a lysosomal storage disease, is characterized by neurologic deterioration, growth retardation, visceromegaly and seizures. Early onset of fucosidosis causes coarse facial features, angioedema corporis diffusum, spasticity, delayed psychomotor development and an unusual spondylometaphyseal dysplasia.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: FUCA1 (human) mapping to 1p36.11.

**SOURCE**

FUCA1 (14-J2) is a mouse monoclonal antibody raised against recombinant FUCA1 of human origin.

**PRODUCT**

Each vial contains 100 µg IgG\(_{2b}\) kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

FUCA1 (14-J2) is recommended for detection of FUCA1 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)) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FUCA1 siRNA (h): sc-78583, FUCA1 shRNA Plasmid (h): sc-78583-SH and FUCA1 shRNA (h) Lentiviral Particles: sc-78583-V.

Molecular Weight of FUCA1: 56 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG\(_{1}\) BP-HRP: sc-516102 or m-IgG\(_{1}\) BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**RESEARCH USE**

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

**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 website at www.scbt.com for detailed protocols and support products.