SANTA CRUZ BIOTECHNOLOGY, INC.

DGLUCY (C-7): sc-515311

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chromosome 14 contains about 700 genes and 106 million base pairs, comprising about 3.5% of human cellular DNA. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder α1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein Bcl-3 in the (14;19) translocations found in a variety of B cell malignancies.

REFERENCES

1. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
2. Godbolt, A.K., et al. 2004. A presenilin 1 R278I mutation presenting with language impairment. Neurology 63: 1702-1704.
3. Stolk, J., et al. 2006. α1-antitrypsin deficiency: current perspective on research, diagnosis, and management. Int. J. Chron. Obstruct. Pulmon. Dis. 1: 151-160.
4. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. Mol. Neurodegener. 1: 4.
5. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. Neurobiol. Aging 28: 1682-1688.
6. Cruz, P.E., et al. 2007. The promise of gene therapy for the treatment of α-1 antitrypsin deficiency. Pharmacogenomics 8: 1191-1198.

CHROMOSOMAL LOCATION

Genetic locus: Dglucy (mouse) mapping to 12 E.

SOURCE

DGLUCY (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 207-234 within an internal region of DGLUCY of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DGLUCY (C-7) is available conjugated to agarose (sc-515311 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515311 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515311 PE), fluorescein (sc-515311 FITC), Alexa Fluor® 488 (sc-515311 AF488), Alexa Fluor® 546 (sc-515311 AF546), Alexa Fluor® 594 (sc-515311 AF594) or Alexa Fluor® 647 (sc-515311 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515311 AF680) or Alexa Fluor® 790 (sc-515311 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515311 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DGLUCY (C-7) is recommended for detection of DGLUCY of mouse and rat origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for DGLUCY siRNA (m): sc-140507, DGLUCY shRNA Plasmid (m): sc-140507-SH and DGLUCY shRNA (m) Lentiviral Particles: sc-140507-V.

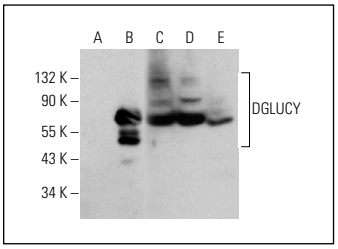
Molecular Weight of DGLUCY isoforms: 66/61 kDa.

Positive Controls: DGLUCY (m): 293T Lysate: sc-118074, LADMAC whole cell lysate: sc-364189 or NIH/3T3 whole cell lysate: sc-2210.

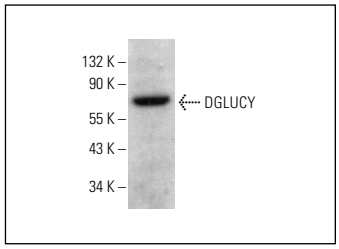
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DGLUCY (C-7): sc-515311. Western blot analysis of DGLUCY expression in non-transfected 293T: sc-117752 (**A**), mouse DGLUCY transfected 293T: sc-118074 (**B**), NIH/3T3 (**C**), LADMAC (**D**) and KNRK (**E**) whole cell lysates.



DGLUCY (C-7): sc-515311. Western blot analysis of DGLUCY expression in C2C12 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 for detailed protocols and support products.