SANTA CRUZ BIOTECHNOLOGY, INC.

FGGY (Q-14): sc-161593

BACKGROUND

FGGY, also known as FLJ10986, is a 551 amino acid member of the FGGY kinase family that exists as 4 isoforms which are produced by alternative splicing events. Expressed in lung, kidney, small intestine, liver and fetal brain, FGGY is encoded by a gene that maps to chromosome 1 and, when mutated, is associated with sporadic amyotrophic lateral sclerosis (ALS). ALS is a neurodegenerative disorder that affects motor neurons and results in fatal paralysis, usually within 2 to 5 years after initial diagnosis. Chromosome 1, on which the gene encoding FGGY is located, is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, many of which are associated with genetic diseases, including Hutchinson-Gilford progeria, familial adenomatous polyposis, Stickler syndrome, Gaucher disease and Usher syndrome.

REFERENCES

1. Blackwood, D.H., Fordyce, A., Walker, M.T., St Clair, D.M., Porteous, D.J. and Muir, W.J. 2001. Schizophrenia and affective disorders-cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611370. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
4. Gregory, S.G., Barlow, K.F., McLay, K.E., Kaul, R., Swarbreck, D., Dunham, A., Scott, C.E., Howe, K.L., Woodfine, K.C., Spencer, C.A., Jones, M.C., Gillson, C., Searle, S., Zhou, Y., Kokocinski, F., McDonald, L., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
5. Hennah, W., Thomson, P., Peltonen, L. and Porteous, D. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC-1 in major mental illness. Schizophr. Bull. 32: 409-416.
6. Marzin, Y., Jamet, D., Douet-Guilbert, N., Morel, F., Le Bris, M.J., Morice, P., Abgrall, J.F., Berthou, C. and De Braekeleer, M. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.
7. Dunckley, T., Huentelman, M.J., Craig, D.W., Pearson, J.V., Szelinger, S., Joshipura, K., Halperin, R.F., Stamper, C., Jensen, K.R., Letizia, D., Hesterlee, S.E., Pestronk, A., Levine, T., Bertorini, T., Graves, M.C., Mozaffar, T., Jackson, C.E., Bosch, P., et al. 2007. Whole-genome analysis of sporadic amyotrophic lateral sclerosis. N. Engl. J. Med. 357: 775-788.

CHROMOSOMAL LOCATION

Genetic locus: FGGY (human) mapping to 1p32.1; Fggy (mouse) mapping to 4 C5.

SOURCE

FGGY (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FGGY 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-161593 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FGGY (Q-14) is recommended for detection of FGGY of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FGGY (Q-14) is also recommended for detection of FGGY in additional species, including equine, canine and bovine.

Suitable for use as control antibody for FGGY siRNA (h): sc-88466, FGGY siRNA (m): sc-145168, FGGY shRNA Plasmid (h): sc-88466-SH, FGGY shRNA Plasmid (m): sc-145168-SH, FGGY shRNA (h) Lentiviral Particles: sc-88466-V and FGGY shRNA (m) Lentiviral Particles: sc-145168-V.

Molecular Weight of FGGY isoforms 1/5: 60/50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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) 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.

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.