SANTA CRUZ BIOTECHNOLOGY, INC.

FUZ (E-20): sc-323895

BACKGROUND

FUZ is a 418 amino acid protein that localizes to both the cytoskeleton and the cytoplasm and is a human homolog of the *Drosophila* fuzzy protein. Existing as three alternatively spliced isoforms, FUZ is thought to be involved in regulating cytoskeletal function and may also play a role in maintaining cell polarity in epithelial cells. The gene encoding FUZ maps to human chromosome 19, which is the genetic home for a number of immunoglobulin superfamily members, including the killer cell and leukocyte Ig-like receptors, several ICAMs, the CEACAM and PSG family and Fc receptors (FcRs). Key genes for eye color and hair color also map to chromosome 19.

REFERENCES

1. Trettel, F., Mantuano, E., Calabresi, V., Veneziano, L., Olsen, A.S., Georgescu, A., Gordon, L., Sabbadini, G., Frontali, M. and Jodice C. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. Gene 241: 45-50.
2. Buchet-Poyau, K., Mehenni, H., Radhakrishna, U. and Antonarakis, S.E. 2002. Search for the second Peutz-Jeghers syndrome locus: exclusion of the STK13, PRKCG, KLK10, and PSCD2 genes on chromosome 19 and the STK11IP gene on chromosome 2. Cytogenet. Genome Res. 97: 171-178.
3. Moodie, S.J., Norman, P.J., King, A.L., Fraser, J.S., Curtis, D., Ellis, H.J., Vaughan, R.W. and Ciclitira, P.J. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. Eur. J. Immunogenet. 29: 287-291.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610622. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Grimwood, J., Gordon, L.A., Olsen, A., Terry, A., Schmutz, J., Lamerdin, J., Hellsten, U., Goodstein, D., Couronne, O., Tran-Gyamfi, M., Aerts, A., Altherr, M., Ashworth, L., Bajorek, E., Black, S., Branscomb, E., Caenepeel, S., Carrano, A., et al. 2004. The DNA sequence and biology of human chromosome 19. Nature 428: 529-535.
6. Park, T.J., Haigo, S.L. and Wallingford, J.B. 2006. Ciliogenesis defects in embryos lacking inturned or fuzzy function are associated with failure of planar cell polarity and Hedgehog signaling. Nat. Genet. 38: 303-311.

CHROMOSOMAL LOCATION

Genetic locus: FUZ (human) mapping to 19q13.33; Fuz (mouse) mapping to 7 B4.

SOURCE

FUZ (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FUZ 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-323895 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FUZ (E-20) is recommended for detection of FUZ 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).

FUZ (E-20) is also recommended for detection of FUZ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FUZ siRNA (h): sc-97521, FUZ siRNA (m): sc-145277, FUZ shRNA Plasmid (h): sc-97521-SH, FUZ shRNA Plasmid (m): sc-145277-SH, FUZ shRNA (h) Lentiviral Particles: sc-97521-V and FUZ shRNA (m) Lentiviral Particles: sc-145277-V.

Molecular Weight of FUZ: 46/42 kDa.

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.