SANTA CRUZ BIOTECHNOLOGY, INC.

FIT2 (K-14): sc-86082

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FIT2 (fat storage-inducing membrane protein 2), also known as FITM2 and C20orf142, is a 262 multi-pass membrane protein that is widely expressed and belongs to the FIT family. FIT2 localizes to the endoplasmic reticulum membrane and is important for lipid droplet accumulation. FIT2 also is involved in cell morphology and cytoskeletal organization. The gene encoding FIT2 maps to human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes which are thought to be important for seminal production and may be potential targets for male contraception.

REFERENCES

1. Ville, D., et al. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. Epilepsia 47: 543-549.
2. Joó, J.G., et al. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. J. Reprod. Med. 51: 209-212.
3. Fulbright, R.K., et al. 2006. The imaging appearance of Creutzfeldt-Jakob disease caused by the E200K mutation. Magn. Reson. Imaging 24: 1121-1129.
4. Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. Asian J. Androl. 9: 540-544.
5. Robert, M.L., et al. 2007. Alagille syndrome with deletion 20p12.2-p12.3 and hypoplastic left heart. Clin. Dysmorphol. 16: 241-246.
6. Elghezal, H., et al. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4-KCNQ2 genes loci. Eur. J. Med. Genet. 50: 441-445.
7. O'Rand, M.G., et al. 2007. Eppin: an epididymal protease inhibitor and a target for male contraception. Soc. Reprod. Fertil. Suppl. 63: 445-453.
8. Kadereit, B., et al. 2008. Evolutionarily conserved gene family important for fat storage. Proc. Natl. Acad. Sci. USA 105: 94-99.

CHROMOSOMAL LOCATION

Genetic locus: FITM2 (human) mapping to 20q13.12.

SOURCE

FIT2 (K-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FIT2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-86082 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FIT2 (K-14) is recommended for detection of FIT2 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)], 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).

FIT2 (K-14) is also recommended for detection of FIT2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for FIT2 siRNA (h): sc-72709, FIT2 shRNA Plasmid (h): sc-72709-SH and FIT2 shRNA (h) Lentiviral Particles: sc-72709-V.

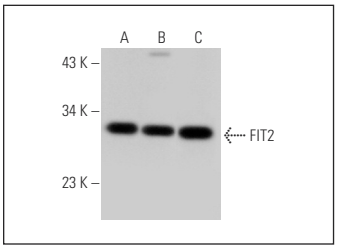
Molecular Weight of FIT2: 30 kDa.

Positive Controls: COLO 205 whole cell lysate: sc-364177, Caco-2 cell lysate: sc-2262 or JAR cell lysate: sc-2276.

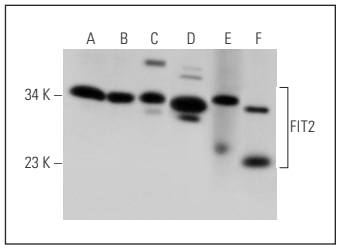
RECOMMENDED SECONDARY REAGENTS

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.

DATA



FIT2 (K-14): sc-86082. Western blot analysis of FIT2 expression in COLO 205 (**A**), Caco-2 (**B**) and JAR (**C**) whole cell lysates.



FIT2 (K-14): sc-86082. Western blot analysis of FIT2 expression in HeLa (**A**), Jurkat (**B**), K-562 (**C**) and HT-29 (**D**) whole cell lysates and human colon (**E**) and human liver (**F**) tissue extracts.

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.