SANTA CRUZ BIOTECHNOLOGY, INC.

FAM47E (H-11): sc-515364

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FAM47E is a 351 amino acid protein that is encoded by a gene that maps to human chromosome 4, that represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is on chromosome 4. FGFR-3 is also encoded on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease. Chromosome 4 reportedly contains the largest gene deserts (regions of the genome with no protein encoding genes) and has one of the two lowest recombination frequencies of the human chromosomes.

REFERENCES

1. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
2. Cowan, C.M. and Raymond, L.A. 2006. Selective neuronal degeneration in Huntington's disease. Curr. Top. Dev. Biol. 75: 25-71.
3. Chandler, R.J., et al. 2007. Metabolic phenotype of methylmalonic acidemia in mice and humans: the role of skeletal muscle. BMC Med. Genet. 8: 64.
4. Cunningham, M.L., et al. 2007. Syndromic craniosynostosis: from history to hydrogen bonds. Orthod. Craniofac. Res. 10: 67-81.

CHROMOSOMAL LOCATION

Genetic locus: FAM47E (human) mapping to 4q21.1; Fam47c (mouse) mapping to X B.

SOURCE

FAM47E (H-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 82-99 within an internal region of FAM47E of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FAM47E (H-11) is available conjugated to agarose (sc-515364 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515364 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515364 PE), fluorescein (sc-515364 FITC), Alexa Fluor® 488 (sc-515364 AF488), Alexa Fluor® 546 (sc-515364 AF546), Alexa Fluor® 594 (sc-515364 AF594) or Alexa Fluor® 647 (sc-515364 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515364 AF680) or Alexa Fluor® 790 (sc-515364 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515364 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

FAM47E (H-11) is recommended for detection of FAM47E of mouse, rat and human 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 FAM47E siRNA (m): sc-108987, FAM47E shRNA Plasmid (m): sc-108987-SH and FAM47E shRNA (m) Lentiviral Particles: sc-108987-V.

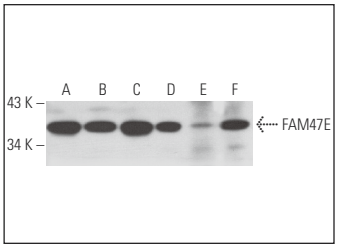
Molecular Weight of FAM47E isoforms: 41/35 kDa.

Positive Controls: mouse liver extract: sc-2256, mouse placenta extract: sc-364247 or Sol8 cell lysate: sc-2249.

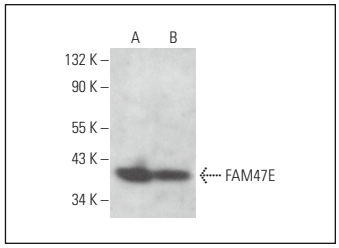
RECOMMENDED SUPPORT REAGENTS

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



FAM47E (H-11): sc-515364. Western blot analysis of FAM47E expression in Sol8 (**A**), c4 (**B**), RIN-m5F (**C**) and I-11.15 (**D**) whole cell lysates and mouse placenta (**E**) and mouse liver (**F**) tissue extracts.



FAM47E (H-11): sc-515364. Western blot analysis of FAM47E expression in c4 (**A**) and NIH/3T3 (**B**) whole cell lysates.

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.