

FAM63A (F-3): sc-398287



The Power to Question

BACKGROUND

Chromosome 1 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, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes Lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma. The FAM63A gene product has been provisionally designated FAM63A pending further characterization.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: FAM63A (human) mapping to 1q21.3; Fam63a (mouse) mapping to 3 F2.1.

SOURCE

FAM63A (F-3) is a mouse monoclonal antibody raised against amino acids 157-205 mapping within an internal region of FAM63A of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FAM63A (F-3) is available conjugated to agarose (sc-398287 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398287 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398287 PE), fluorescein (sc-398287 FITC), Alexa Fluor® 488 (sc-398287 AF488), Alexa Fluor® 546 (sc-398287 AF546), Alexa Fluor® 594 (sc-398287 AF594) or Alexa Fluor® 647 (sc-398287 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398287 AF680) or Alexa Fluor® 790 (sc-398287 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

FAM63A (F-3) is recommended for detection of FAM63A 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 FAM63A siRNA (h): sc-78698, FAM63A siRNA (m): sc-140110, FAM63A shRNA Plasmid (h): sc-78698-SH, FAM63A shRNA Plasmid (m): sc-140110-SH, FAM63A shRNA (h) Lentiviral Particles: sc-78698-V and FAM63A shRNA (m) Lentiviral Particles: sc-140110-V.

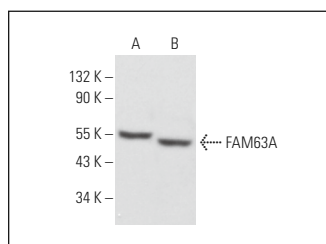
Molecular Weight of FAM63A isoforms 1/2/3/4: 52/36/57/42 kDa.

Positive Controls: FAM63A (h): 293T Lysate: sc-114955, Caki-1 cell lysate: sc-2224 or KNRK whole cell lysate: sc-2214.

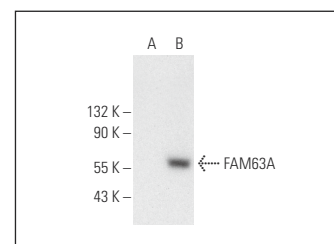
RECOMMENDED SUPPORT REAGENTS

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



FAM63A (F-3): sc-398287. Western blot analysis of FAM63A expression in KNRK (A) and Caki-1 (B) whole cell lysates.



FAM63A (F-3): sc-398287. Western blot analysis of FAM63A expression in non-transfected: sc-117752 (A) and human FAM63A transfected: sc-114955 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Guo, K., et al. 2018. Ablation of Ggnbp2 impairs meiotic DNA double-strand break repair during spermatogenesis in mice. *J. Cell. Mol. Med.* 22: 4863-4874.

STORAGE

Store at 4° C, **DO NOT FREEZE** Stable for one year from the date of shipment. Non-hazardous. No MSDS required.