

FAM3A (D-12): sc-131511

BACKGROUND

The FAM3 family of proteins consist of FAM3A, FAM3B, FAM3C and FAM3D. FAM3 proteins form four-helix-bundle structures and are thought to function in a similar manner as cytokines. FAM3A (family with sequence similarity 3, member A), also known as 2-19 protein, is a 230 amino acid secreted protein that contains one GG domain, which may function as an important structural element. GG domain-containing proteins have been implicated in muscle-eye-brain disease and non-syndromic hearing loss. FAM3A is predominantly expressed in vascular endothelium, particularly capillaries, though it is also expressed in islets of Langerhans of the endocrine pancreas. The gene encoding FAM3A is localized to the human X chromosome, which consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

REFERENCES

- Chen, E.Y., et al. 1991. Sequence of human glucose-6-phosphate dehydrogenase cloned in plasmids and a yeast artificial chromosome. *Genomics* 10: 792-800.
- Bione, S., et al. 1993. Transcriptional organization of a 450-kb region of the human X chromosome in Xq28. *Proc. Natl. Acad. Sci. USA* 90: 10977-10981.
- Chen, E.Y., et al. 1996. Long-range sequence analysis in Xq28: thirteen known and six candidate genes in 219.4 kb of high GC DNA between the RCP/GCP and G6PD loci. *Hum. Mol. Genet.* 5: 659-668.
- Zhu, Y., et al. 2002. Cloning, expression, and initial characterization of a novel cytokine-like gene family. *Genomics* 80: 144-150.
- Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 300492. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. *Nature* 434: 325-337.
- Guo, J., et al. 2006. GG: a domain involved in phage LTF apparatus and implicated in human MEB and non-syndromic hearing loss diseases. *FEBS Lett.* 580: 581-584.

CHROMOSOMAL LOCATION

Genetic locus: FAM3A (human) mapping to Xq28; Fam3a (mouse) mapping to X A7.3.

SOURCE

FAM3A (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FAM3A of human origin.

STORAGE

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

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-131511 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAM3A (D-12) is recommended for detection of FAM3A of mouse, rat and 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); non cross-reactive with FAM3B or FAM3D.

FAM3A (D-12) is also recommended for detection of FAM3A in additional species, including equine, canine and porcine.

Suitable for use as control antibody for FAM3A siRNA (h): sc-91207, FAM3A siRNA (m): sc-145038, FAM3A shRNA Plasmid (h): sc-91207-SH, FAM3A shRNA Plasmid (m): sc-145038-SH, FAM3A shRNA (h) Lentiviral Particles: sc-91207-V and FAM3A shRNA (m) Lentiviral Particles: sc-145038-V.

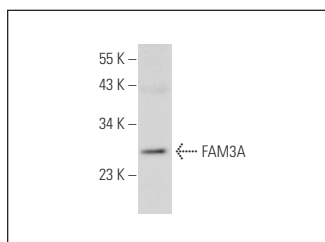
Molecular Weight of FAM3A: 25 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FAM3A (D-12): sc-131511. Western blot analysis of FAM3A expression in mouse skeletal muscle tissue extract.

RESEARCH USE

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