

# FAM70A (A-13): sc-167818

## BACKGROUND

The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development while two copies of X lead to normal female development. There are a number of conditions related to an unusual number and combination of sex chromosomes being inherited. More than one copy of the X chromosome with a Y chromosome causes Klinefelter's syndrome. A single copy of X alone leads to Turner's syndrome. More than two copies of the X chromosome, in the absence of a Y chromosome, is known as Triple X syndrome. 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. The FAM70A gene product has been provisionally designated FAM70A pending further characterization.

## REFERENCES

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- Muntoni, F., et al. 2003. Dystrophin and mutations: one gene, several proteins, multiple phenotypes. *Lancet Neurol.* 2: 731-740.
- Deeb, S.S. 2005. The molecular basis of variation in human color vision. *Clin. Genet.* 67: 369-377.
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- Augui, S., et al. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. *Science* 318: 1632-1636.

## CHROMOSOMAL LOCATION

Genetic locus: FAM70A (human) mapping to Xq24; Fam70a (mouse) mapping to X A3.3.

## SOURCE

FAM70A (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FAM70A 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-167818 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FAM70A (A-13) is recommended for detection of FAM70A 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 FAM70B.

FAM70A (A-13) is also recommended for detection of FAM70A in additional species, including canine.

Suitable for use as control antibody for FAM70A siRNA (h): sc-91200, FAM70A siRNA (m): sc-140459, FAM70A shRNA Plasmid (h): sc-91200-SH, FAM70A shRNA Plasmid (m): sc-140459-SH, FAM70A shRNA (h) Lentiviral Particles: sc-91200-V and FAM70A shRNA (m) Lentiviral Particles: sc-140459-V.

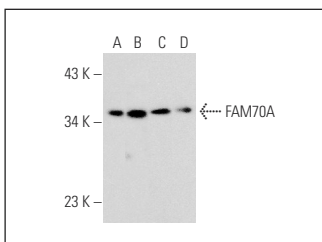
Molecular Weight of FAM70A isoforms: 38/21 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, SH-SY5Y cell lysate: sc-3812 or U-87 MG cell lysate: sc-2411.

## 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



FAM70A (A-13): sc-167818. Western blot analysis of FAM70A expression in Jurkat (A), A2058 (B), SH-SY5Y (C) and U-87 MG (D) 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.