SANTA CRUZ BIOTECHNOLOGY, INC.

FAM168A (E-13): sc-138365

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FAM168A (family with sequence similarity 168, member A) is a 244 amino acid protein that exists as 3 alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 11, which makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and β thalassemia are caused by HBB gene mutations. Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11.

REFERENCES

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3. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
4. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
5. Ataga, K.I., et al. 2007. β-thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. Br. J. Haematol. 139: 3-13.
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7. Lee, J.H., et al. 2007. Activation and regulation of ATM kinase activity in response to DNA double-strand breaks. Oncogene 26: 7741-7748.
8. O'Connor, M.J., et al. 2007. Targeted cancer therapies based on the inhibition of DNA strand break repair. Oncogene 26: 7816-7824.

CHROMOSOMAL LOCATION

Genetic locus: FAM168A (human) mapping to 11q13.4; Fam168a (mouse) mapping to 7 E3.

SOURCE

FAM168A (E-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FAM168A 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-138365 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAM168A (E-13) is recommended for detection of FAM168A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other KIAA family members .

FAM168A (E-13) is also recommended for detection of FAM168A in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FAM168A siRNA (h): sc-106919, FAM168A siRNA (m): sc-141455, FAM168A shRNA Plasmid (h): sc-106919-SH, FAM168A shRNA Plasmid (m): sc-141455-SH, FAM168A shRNA (h) Lentiviral Particles: sc-106919-V and FAM168A shRNA (m) Lentiviral Particles: sc-141455-V.

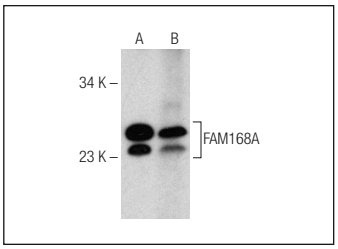
Molecular Weight of FAM168A isoforms 1/2/3: 26/25/14 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, mouse spleen extract: sc-2391 or MDA-MB-231 whole cell lysate.

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



FAM168A (E-13): sc-138365. Western blot analysis of FAM168A expression in Jurkat whole cell lysate (**A**) and mouse spleen tissue extract (**B**).

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.