

FEM1A (Q-15): sc-68489

BACKGROUND

Apoptosis is an evolutionarily conserved process that is essential for tissue homeostasis and development including sex determination. The FEM proteins are components of a novel signal transduction pathway and are required for male sexual development in the nematode *C. elegans*. FEM1A (FEM-1 homolog a), also known as EPRAP (prostaglandin E receptor 4-associated protein), is a 669 amino acid cytoplasmic protein that belongs to the FEM-1 family. FEM1A is present in atheromata and in macrophages derived from peripheral blood monocytes. FEM1A may be a component of an E3 ubiquitin-protein ligase complex and functions as a substrate recognition subunit. It is suggested that FEM1A participates in anti-inflammatory signaling of macrophages via its interaction with EP4. FEM1A is downregulated in rhabdomyosarcoma, the most common soft tissue neoplasm of children. FEM1A is considered a candidate gene for polycystic ovary syndrome.

REFERENCES

1. Ventura-Holman, T., Seldin, M.F., Li, W. and Maher, J.F. 1998. The murine fem1 gene family: homologs of the *Caenorhabditis elegans* sex-determination protein FEM-1. *Genomics* 54: 221-230.
2. Krakow, D., Sebald, E., King, L.M. and Cohn, D.H. 2001. Identification of human FEM1A, the ortholog of a *C. elegans* sex-differentiation gene. *Gene* 279: 213-219.
3. Tan, K.M., Chan, S.L., Tan, K.O. and Yu, V.C. 2001. The *Caenorhabditis elegans* sex-determining protein FEM-2 and its human homologue, hFEM-2, are Ca²⁺/calmodulin-dependent protein kinase phosphatases that promote apoptosis. *J. Biol. Chem.* 276: 44193-44202.

CHROMOSOMAL LOCATION

Genetic locus: FEM1A (human) mapping to 19p13.3; Fem1a (mouse) mapping to 17 D.

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SOURCE

FEM1A (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FEM1A 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-68489 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

FEM1A (Q-15) is recommended for detection of FEM1A 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).

FEM1A (Q-15) is also recommended for detection of FEM1A in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for FEM1A siRNA (h): sc-75013, FEM1A siRNA (m): sc-75014, FEM1A shRNA Plasmid (h): sc-75013-SH, FEM1A shRNA Plasmid (m): sc-75014-SH, FEM1A shRNA (h) Lentiviral Particles: sc-75013-V and FEM1A shRNA (m) Lentiviral Particles: sc-75014-V.

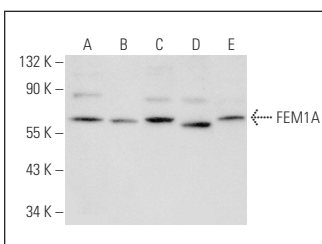
Molecular Weight of FEM1A: 70 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-937 cell lysate: sc-2239 or M1 whole cell lysate: sc-364782.

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



FEM1A (Q-15): sc-68489. Western blot analysis of FEM1A expression in Jurkat (A), U-937 (B), M1 (C), K-562 (D) and NIH/3T3 (E) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.