

# FAM12 (M-15): sc-164497

## BACKGROUND

Testicular sperm are morphologically differentiated but are not progressively motile nor able to fertilize an egg. Post-testicular maturation requires exposure of spermatozoa to the microenvironment of the epididymal lumen. The proteins and enzymes that modify spermatozoa are synthesized by epithelial cells lining the epididymal duct and are secreted apically into the lumen, where they come into contact with, and may be absorbed onto, the sperm membrane. FAM12, also known as Gm75 (gene model 75) or Eddm3b, is a 149 amino acid mouse protein. The human homolog of this protein, known as FAM12, EDDM3B (epididymal secretory protein E3- $\beta$ ) or HE3B (human epididymis-specific protein 3- $\beta$ ), is a 147 amino acid secreted protein that may play a role in sperm maturation. The genes encoding human and mouse FAM12 map to human chromosome 14q11.2 and mouse chromosome 14 C1, respectively.

## REFERENCES

- Kirchhoff, C., et al. 1994. Major human epididymis-specific gene product, HE3, is the first representative of a novel gene family. *Mol. Reprod. Dev.* 37: 130-137.
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- Kirchhoff, C. 1998. Molecular characterization of epididymal proteins. *Rev. Reprod.* 3: 86-95.
- Lasserre, A., et al. 2001. Human epididymal proteins and sperm function during fertilization: an update. *Biol. Res.* 34: 165-178.
- Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.
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## CHROMOSOMAL LOCATION

Genetic locus: Eddm3b (mouse) mapping to 14 C1.

## SOURCE

FAM12 (M-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FAM12 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164497 P, (100  $\mu$ g 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

FAM12 (M-15) is recommended for detection of FAM12 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 FAM12 siRNA (m): sc-145603, FAM12 shRNA Plasmid (m): sc-145603-SH and FAM12 shRNA (m) Lentiviral Particles: sc-145603-V.

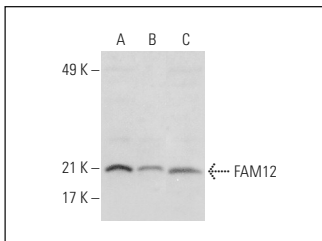
Molecular Weight of FAM12: 18 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, KNRK whole cell lysate: sc-2214 or RAW 264.7 whole cell lysate: sc-2211.

## 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



FAM12 (M-15): sc-164497. Western blot analysis of FAM12 expression in NIH/3T3 (A), KNRK (B) and RAW 264.7 (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.