

# Eppin (I-12): sc-34604

## BACKGROUND

Eppin, an epididymal protease inhibitor, belongs to the WFDC family and to the telomeric cluster. The gene encoding the protein is localized to chromosome 20q12-q13 in centromeric and telomeric clusters. It expresses three mRNAs encoding two isoforms of a cysteine-rich protein that contains Kunitz-type and WAP-type (four disulfide core) protease inhibitor consensus sequences. The mouse gene lies in a cluster of putative Eppin-like genes on mouse chromosome 2. Following ejaculation, Eppin is bound to semenogelin in seminal plasma and on human spermatozoa. This complex of Eppin and semenogelin can provide antimicrobial activity for spermatozoa. It can also provide for the preparation and survival of spermatozoa for fertility in the female reproductive tract. Eppin, which is a secreted protein, is expressed in epididymis and testis.

## REFERENCES

- Richardson, R.T., et al. 2001. Cloning and sequencing of human Eppin: a novel family of protease inhibitors expressed in the epididymis and testis. *Gene* 270: 93-102.
- Sivashanmugam, P., et al. 2003. Characterization of mouse Eppin and a gene cluster of similar protease inhibitors on mouse chromosome 2. *Gene* 312: 125-134.
- Karande, A., et al. 2004. Eppin: a candidate male contraceptive vaccine? *J. Biosci.* 29: 373-374.
- Yenugu, S., et al. 2004. Antimicrobial activity of human Eppin, an androgen-regulated, sperm-bound protein with a whey acidic protein motif. *Biol. Reprod.* 71: 1484-1490.
- Wang, Z., et al. 2005. Association of Eppin with semenogelin on human spermatozoa. *Biol. Reprod.* 72: 1064-1070.
- SWISS-PROT/TrEMBL (O95925). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## CHROMOSOMAL LOCATION

Genetic locus: SPINLW1 (human) mapping to 20q12-q13.2; Spinlw1 (mouse) mapping to 2 H3.

## SOURCE

Eppin (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Eppin 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-34604 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

Eppin (I-12) is recommended for detection of Eppin 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).

Suitable for use as control antibody for Eppin siRNA (h): sc-44415, Eppin siRNA (m): sc-44423, Eppin shRNA Plasmid (h): sc-44415-SH, Eppin shRNA Plasmid (m): sc-44423-SH, Eppin shRNA (h) Lentiviral Particles: sc-44415-V and Eppin shRNA (m) Lentiviral Particles: sc-44423-V.

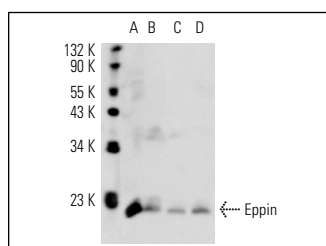
Molecular Weight of Eppin: 16 kDa.

Positive Controls: F9 cell lysate: sc-2245, HeLa whole cell lysate: sc-2200 or NTERA-2 cl.D1 whole cell lysate.

## 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



Eppin (I-12): sc-34604. Western blot analysis of Eppin expression in F9 (A), NTERA-2 cl.D1 (B), HeLa (C) and P19 (D) whole cell lysates.

## RESEARCH USE

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

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Try **Eppin (YY-23): sc-100726**, our highly recommended monoclonal alternative to Eppin (I-12).