

# Proliferin (C-14): sc-47345

## BACKGROUND

Various hormones are secreted from the anterior pituitary during development and growth, including prolactin, luteinizing hormone (LH), Proliferin (Mrp1 or Plf1), thyroid-stimulating hormone (TSH) and follicle-stimulating hormone (FSH). Proliferin, which also is designated mitogen-regulated protein 1, is an important secreted protein that plays a role in embryonic development. During fetal development at mid-gestation, Proliferin provides a growth signal to target cells in fetal and maternal tissues. It is a secreted protein that belongs to the somatotropin/Prolactin growth hormone family of proteins.

## REFERENCES

- Linzer, D.I. and Nathans D. 1984. Nucleotide sequence of a growth-related mRNA encoding a member of the prolactin-growth hormone family. Proc. Natl. Acad. Sci. USA 81: 4255-4259.
- Linzer, D.I. and Mordacq, J.C. 1987. Transcriptional regulation of Proliferin gene expression in response to serum in transfected mouse cells. EMBO J. 6: 2281-2288.
- Hardy, C.M., Clydesdale, G. and Mobbs, K.J. 2004. Development of mouse-specific contraceptive vaccines: infertility in mice immunized with peptide and polypeptide antigens. Reproduction 128: 395-407.
- Dostert, A. and Heinzl, T. 2004. Negative glucocorticoid receptor response elements and their role in glucocorticoid action. Curr. Pharm. Des. 10: 2807-2816.
- Xie, J., Baumann, M.J. and McCabe, L.R. 2004. Osteoblasts respond to hydroxyapatite surfaces with immediate changes in gene expression. J. Biomed. Mater. Res. A 71: 108-117.
- Parfett, C.L. 2005. Mitogen-regulated protein/Proliferin mRNA induction following single applications of tumor promoters to murine skin. Mol. Carcinog. 43: 117-29.
- Xie, J., Baumann, M.J. and McCabe, L.R. 2005. Adsorption of serum fetuin to hydroxylapatite does not contribute to osteoblast phenotype modifications. J. Biomed. Mater. Res. A 73: 39-47.

## SOURCE

Proliferin (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Proliferin-1 of mouse 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-47345 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.

## RESEARCH USE

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

## APPLICATIONS

Proliferin (C-14) is recommended for detection of Proliferin-1-4 of mouse and rat 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).

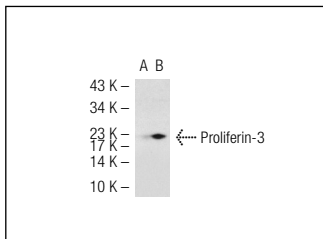
Molecular Weight of Proliferin: 28 kDa.

Positive Controls: Proliferin-3 (m): 293T Lysate: sc-122788 or mouse placenta extract: sc-364247.

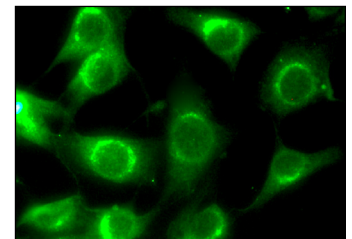
## RECOMMENDED SECONDARY REAGENTS

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



Proliferin (C-14): sc-47345. Western blot analysis of Proliferin-3 expression in non-transfected: sc-117752 (A) and mouse Proliferin-3 transfected: sc-122788 (B) 293T whole cell lysates.



Proliferin (C-14): sc-47345. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Krey, G., Frank, P., Shaikly, V., Barrientos, G., Cordo-Russo, R., Ringel, F., Moschansky, P., Chernukhin, I.V., Metodiev, M., Fernández, N., Klapp, B.F., Arck, P.C. and Blois, S.M. 2008. *In vivo* dendritic cell depletion reduces breeding efficiency, affecting implantation and early placental development in mice. J. Mol. Med. 86: 999-1011.

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Try **Proliferin (E-10): sc-271891**, our highly recommended monoclonal alternative to Proliferin (C-14).