

# Prolactin (H-105): sc-20726

## BACKGROUND

The anterior pituitary secretes a variety of hormones that are involved in cell growth, differentiation and development. Prolactin, a 226 amino acid protein, plays a role in multiple processes, including cell growth, reproduction and immune function. Full length Prolactin, as well as an alternative splice product lacking the third exon, are secreted by endothelial cells involved in angiogenesis. In addition to its role in mammary development and lactation, Prolactin is known to play a role in the development of mammary cancer, acting as both a mitogen and a differentiating agent. Prolactin has also been shown to enhance the proliferation of B cell hybridomas, leading to an overall increase in antibody production. In addition, Prolactin has been demonstrated to reverse the antiproliferative effects of the immunosuppressive cytokine TGF $\beta$ . Prolactin is also associated with a variety of autoimmune diseases, including arthritis and type 1 diabetes.

## REFERENCES

- Goffin, V., Bouchard, B., Ormandy, C.J., Weimann, E., Ferrag, F., Touraine, P., Bole-Feysot, C., Maaskant, R.A., Clement-Lacroix, P., Ederly, M., Binart, N. and Kelly, P.A. 1998. Prolactin: a hormone at the crossroads of neuroimmunoenocrinology. *Ann. N.Y. Acad. Sci.* 840: 498-509.
- Clapp, C., Lopez-Gomez, F.J., Nava, G., Corbacho, A., Torner, L., Macotela, Y., Duenas, Z., Ochoa, A., Noris, G., Acosta, E., Garay, E. and Martinez de la Escalera, G. 1998. Expression of Prolactin mRNA and of Prolactin-like proteins in endothelial cells: evidence for autocrine effects. *J. Endocrinol.* 158: 137-144.
- Vonderhaar, B.K. 1998. Prolactin: the forgotten hormone of human breast cancer. *Pharmacol. Ther.* 79: 169-178.
- Richards, S.M., Garman, R.D., Keyes, L., Kavanagh, B. and McPherson, J.M. 1998. Prolactin is an antagonist of TGF-beta activity and promotes proliferation of murine B cell hybridomas. *Cell Immunol.* 184: 85-91.
- Neidhart, M. 1998. Prolactin in autoimmune diseases. *Proc. Soc. Exp. Biol. Med.* 217: 408-419.

## CHROMOSOMAL LOCATION

Genetic locus: PRL (human) mapping to 6p22.2-p21.33; Prl (mouse) mapping to 13 A3.1.

## SOURCE

Prolactin (H-105) is a rabbit polyclonal antibody raised against amino acids 96-200 mapping near the C-terminus of Prolactin of human origin.

## PRODUCT

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

## STORAGE

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

## APPLICATIONS

Prolactin (H-105) is recommended for detection of Prolactin of human 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).

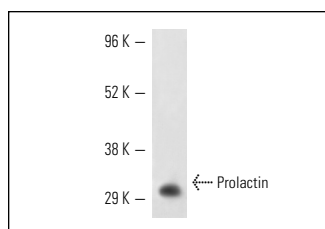
Suitable for use as control antibody for Prolactin siRNA (h): sc-37214, Prolactin shRNA Plasmid (h): sc-37214-SH and Prolactin shRNA (h) Lentiviral Particles: sc-37214-V.

Molecular Weight of Prolactin: 27 kDa.

## 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



Prolactin (H-105): sc-20726. Western blot analysis of human recombinant Prolactin.

## 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.



Try **Prolactin (A-7): sc-46698** or **Prolactin (H-12): sc-271773**, our highly recommended monoclonal alternatives to Prolactin (H-105).