

Prolactin (C-17): sc-7805

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 β . Prolactin is also associated with a variety of autoimmune diseases, including arthritis and type 1 diabetes.

CHROMOSOMAL LOCATION

Genetic locus: PRL (human) mapping to 6p22.3; Prl (mouse) mapping to 13 A3.1.

SOURCE

Prolactin (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Prolactin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7805 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Prolactin (C-17) is recommended for detection of Prolactin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Prolactin (C-17) is also recommended for detection of Prolactin in additional species, including equine, canine, porcine, avian and feline.

Suitable for use as control antibody for Prolactin siRNA (h): sc-37214, Prolactin siRNA (m): sc-37215, Prolactin shRNA Plasmid (h): sc-37214-SH, Prolactin shRNA Plasmid (m): sc-37215-SH, Prolactin shRNA (h) Lentiviral Particles: sc-37214-V and Prolactin shRNA (m) Lentiviral Particles: sc-37215-V.

Molecular Weight of Prolactin: 27 kDa.

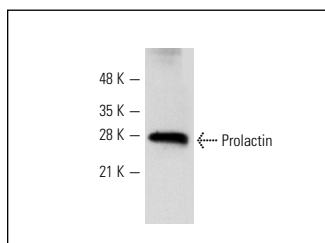
STORAGE

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.

DATA



Prolactin (C-17): sc-7805. Western blot analysis of Prolactin expression in rat pituitary extract.

SELECT PRODUCT CITATIONS

- Kline, J.B., et al. 2001. Identification and characterization of the prolactin-binding protein in human serum and milk. *J. Biol. Chem.* 276: 24760-24766.
- Kano, K., et al. 2008. A novel dwarfism with gonadal dysfunction due to loss-of-function allele of the collagen receptor gene, *Ddr2*, in the mouse. *Mol. Endocrinol.* 22: 1866-1880.
- Yang, H., et al. 2008. Reduction in hypophyseal growth hormone and prolactin expression due to deficiency in ghrelin receptor signaling is associated with Pit-1 suppression: relevance to the immune system. *Brain Behav. Immun.* 22: 1138-1145.
- Fujita, T., et al. 2010. Transcription elongation factors are involved in programming hormone production in pituitary neuroendocrine GH4C1 cells. *Mol. Cell. Endocrinol.* 319: 63-70.
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- Luque, G.M., et al. 2011. Inhibitory effects of antivascular endothelial growth factor strategies in experimental dopamine-resistant prolactinomas. *J. Pharmacol. Exp. Ther.* 337: 766-774.
- Toledano, Y., et al. 2012. Estradiol partially recapitulates murine pituitary cell cycle response to pregnancy. *Endocrinology* 153: 5011-5022.
- Sun, Y., et al. 2012. Loss-of-function mutations in IGSF1 cause an X-linked syndrome of central hypothyroidism and testicular enlargement. *Nat. Genet.* 44: 1375-1381.



Try **Prolactin (A-7): sc-46698** or **Prolactin (H-12): sc-271773**, our highly recommended monoclonal alternatives to Prolactin (C-17).