SANTA CRUZ BIOTECHNOLOGY, INC.

Prolactin (B-8): sc-271758

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 developmant 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 (B-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 193-213 near the C-terminus of Prolactin of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271758 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Prolactin (B-8) is recommended for detection of Prolactin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Prolactin (B-8) is also recommended for detection of Prolactin in additional species, including equine, canine and porcine.

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.

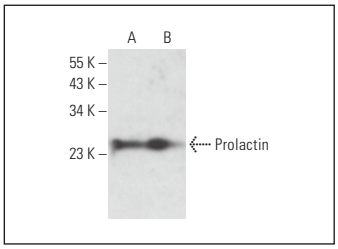
Molecular Weight of Prolactin: 27 kDa.

Positive Controls: rat pituitary tissue extract, AT3B-1 whole cell lysate: sc-364372 or BT-20 cell lysate: sc-2223.

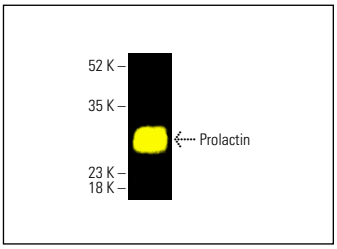
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Prolactin (B-8): sc-271758. Western blot analysis of Prolactin expression in AtT-20/D16V-F2 (**A**) and AT3B-1 (**B**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Prolactin (B-8): sc-271758. Fluorescent western blot analysis of Prolactin expression in rat pituitary gland tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_3 BP-CFL 488: sc-533673.

SELECT PRODUCT CITATIONS

1. Liu, X., et al. 2015. ErbB receptor-driven prolactinomas respond to targeted lapatinib treatment in female transgenic mice. Endocrinology 156: 71-79.
2. Shukla, V., et al. 2019. Inhibition of TPPP3 attenuates β-catenin/NFκB/Cox-2 signaling in endometrial stromal cells and impairs decidualization. J. Endocrinol. 240: 417-429.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.