SANTA CRUZ BIOTECHNOLOGY, INC.

Prolactin (M-19): sc-7807

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

CHROMOSOMAL LOCATION

Genetic locus: Prl (mouse) mapping to 13 A3.1.

SOURCE

Prolactin (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Prolactin 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-7807 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Prolactin (M-19) is recommended for detection of Prolactin 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).

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

Molecular Weight of Prolactin: 27 kDa.

Positive Controls: rat pituitary tissue extract.

STORAGE

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

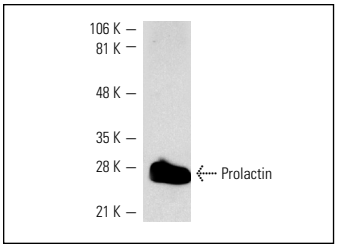
RESEARCH USE

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

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



Prolactin (M-19): sc-7807. Western blot analysis of Prolactin expression in rat pituitary extract.

SELECT PRODUCT CITATIONS

1. Bogan, J.S., et al. 2003. Functional cloning of TUG as a regulator of GLUT4 glucose transporter trafficking. Nature 425: 727-733.
2. Foryst-Ludwig, A., et al. 2004. Curcumin blocks NF-κB and the motogenic response in Helicobacter pylori-infected epithelial cells. Biochem. Biophys. Res. Commun. 316: 1065-1072.
3. Lee, E.J., et al. 2005. Pit-1 Induces transient differentiation of adult hepatic stem cells into prolactin-producing cells *in vivo*. Mol. Endocrinol. 19: 964-971.
4. Wessler, S., et al. 2005. The anti-inflammatory compound curcumin inhibits Neisseria gonorrhoeae-induced NFκB signaling, release of pro-inflammatory cytokines/chemokines and attenuates adhesion in late infection. Biol. Chem. 386: 481-490.

PROTOCOLS

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