**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 hybridsomas, leading to an overall increase in antibody production. Prolactin reverses the antiproliferative effects of the immunosuppressive cytokine TGFβ. Prolactin is also associated with a variety of autoimmune diseases, including arthritis and type 1 diabetes. The receptor for prolactin (PRL-R) belongs to the cytokine receptor superfamily. PRL-R is activated by ligand-induced homodimerization and subsequent cell signaling through the JAK/Stat pathway. The gene encoding human PRL-R maps to chromosome 5p13.2.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: Prlr (mouse) mapping to 15 A1.

**SOURCE**

PRL-R (B10) is a mouse monoclonal antibody raised against amino acids 91-260 mapping within an extracellular domain of PRL-R of mouse origin.

**PRODUCT**

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

PRL-R (B10) is available conjugated to agarose (sc-74520 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74520 HRP), 200 µg/ml, for WB, HCl/P and ELISA; to either phycoerythrin (sc-74520 PE), fluorescein (sc-74520 FITC), Alexa Fluor® 488 (sc-74520 AF488), Alexa Fluor® 546 (sc-74520 AF546), Alexa Fluor® 594 (sc-74520 AF594) or Alexa Fluor® 647 (sc-74520 AF647), 200 µg/ml, for WB (RGB), IF, IHC(+) and FCM; and to either Alexa Fluor® 680 (sc-74520 AF680) or Alexa Fluor® 790 (sc-74520 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

PRL-R (B10) is recommended for detection of PRL-R isoforms 1-3 of mouse 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 1:30-1:300).

Suitable for use as control antibody for PRL-R siRNA (m): sc-40168, PRL-R shRNA Plasmid (m): sc-40168-SH and PRL-R shRNA (m) Lentiviral Particles: sc-40168-V.

Molecular Weight of PRL-R: 100 kDa.

**STORAGE**

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

**APPLICATIONS**

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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