



20150217ML

Anti-Human Prolactin R (#6G8)

Product Specifications

Host	Mouse
Reactivity against	Human
Clonality	Monoclonal Antibody
Clone	(#6G8)
Isotype	IgG1
Purification	Protein G chromatography
Antigen	recombinant human Prolactin R extracellular domain
Formulation	lyophilized
Reconstitution buffer	PBS (sterile)

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	101-M611
Size:	100 µg
Lot. No.:	According to product label

Preparation: This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse) immunized with human recombinant protein of Prolactin R extracellular domain.

Target Background

Synonyms (Target):	Prlr; Pr-1; Pr-3; AI987712; Prlr-rs1
---------------------------	--------------------------------------

The neuroendocrine pituitary hormone Prolactin (PRL), also known as lactotrophin, mamotrophin, luteotropic hormone (LTH), or luteotropin, is a secreted hormone that affects reproduction and homeostasis in vertebrates. The functions of PRL can be placed in six broad categories: 1) reproduction and lactation; 2) growth and development; 3) endocrinology and metabolism; 4) brain and behavior; 5) immunomodulation; and 6) electrolyte balance. PRL is secreted by the anterior pituitary gland, mammary gland, placenta, brain, uterus, decidua, dermal fibroblasts, B cells, T cells, NK cells, and some breast cancer cell lines. Although the major form of PRL is a 23 kDa monomeric protein, splice variants of 14, 16, and 22 kDa have been identified. PRL has also been found to be glycosylated, phosphorylated, dimerized, and polymerized. Glycosylation, phosphorylation, dimerization, or polymerization of PRL result in lower activity. Cell activation by PRL is mediated by a single chain membrane-bound protein belonging to the class 1 cytokine superfamily. The PRL receptor (PRL R) contains an extracellular, transmembrane, and intracellular domain. Transcriptional regulation of the PRL R gene results in several different species-dependent isoforms of PRL R being produced. Although the cytoplasmic domains of the different isoforms vary in length and composition, their extracellular domains are identical. In rats, three major PRL receptor isoforms have been described, a short (291 amino acid), an intermediate (393 amino acid), and a long (591 amino acid) (2). PRL receptors are found in mammary tissue, pituitary gland, brain, heart, lung thymus, spleen, liver, pancreas, kidney, adrenal gland, uterus, skeletal muscle, and skin (3). A soluble form of PRL R containing the 206 NH₂terminal amino acids of the extracellular domain is secreted by mammary epithelial cells and is found in milk.

Reconstitution: Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

Stability: Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

Remarks: This antibody was selected for its ability to detect human Prolactin R.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

Applications

The antibody can be used within the following applications:

WB, N

Recommended usage:

Neutralization of Prolactin R bioactivity: Yes

WB: Use at 1:500-1000

Database References Target

Protein RefSeq:	NP_000940.1
Uniprot ID:	P16471
mRNA RefSeq:	NM_000949.5

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!