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Human Prolactin Antibody

Purified No Carrier Protein

Monoclonal Antibody

Product Information

Product No.:	P101
Clone:	174
RRID:	AB_2737555
Isotype:	Mouse IgG
Storage:	Sterile 2° to 8°C

Product Description

Specificity:
Mouse Anti-Human Prolactin (Clone 174) recognizes Human Prolactin. This monoclonal antibody was purified using multi-step affinity chromatography methods such as Protein A or G depending on the species and isotype.

Background:
Prolactin (PRL) or Luteotropic hormone (LTH) is best known as the pituitary modulator of lactation and reproduction.[1] Prolactin is a multifaceted hormone that is capable of modulating hundreds of physiological processes in adult vertebrates.[2] PRL promotes proliferation, survival and migration of cancer cells acting via the prolactin receptor (PRLR).[3] It also modulates maternal behavior and mediates hypothalamic pituitary adrenal axis inhibition during lactation via PRL receptors in the brain.[4] Prolactin also has a number of other effects including contributing to surfactant synthesis of the fetal lungs at the end of the pregnancy and immune tolerance of the fetus by the maternal organism during pregnancy. It also decreases normal levels of sex hormones — estrogen in women and testosterone in men.[5] Prolactin is a single chain polypeptide of 199 amino acids with a molecular weight of about 24,000 daltons. Its structure is similar to that of growth hormone and placental lactogen. The molecule is folded due to the activity of three disulfide bonds. Significant heterogeneity of the molecule has been described, thus bioassays and immunoassays can give different results due to differing glycosylation, phosphorylation, sulfation, as well as degradation. The non-glycosylated form of prolactin is the dominant form of prolactin that is secreted by the pituitary gland. Increased serum concentrations of prolactin during pregnancy cause enlargement of the mammary glands of the breasts and increases the production of milk. However, the high levels of progesterone during pregnancy act directly on the breasts to stop ejection of milk. It is only when the levels of this hormone fall after childbirth that milk ejection is possible.

Known Reactivity Species:
Human

Format:
Purified No Carrier Protein

Immunogen:
Purified Recombinant Human Prolactin (>98%)

Formulation
This purified antibody is supplied in 0.05 M phosphate buffered saline (PBS), pH 7.3 - 7.5, containing 0.1% sodium azide. as a preservative.

Storage and Stability
This Purified Antibody is stable when stored at 2° to 8°C. **Do not freeze.**

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Country of Origin
USA

References
1) Paus, R. et al. (2012) Arch Dermatol Res. 304(2):115-8.
2) Zhu, Y. et al. (2008) Comp Biochem Physiol C Toxicol Pharmacol. 148(4):370-80.
3) Panina, S. et al. (2009) J Endocrinol. 201(1):115-28.
4) Neuwmann, ID. et al. (2009) Endocrinology. 150(4):1841-9.
5) Molitch MD., ME. (2005) Mayo Clinic Proceedings 80(8):1050-1057
6) Gout, PW. et al. (1980) Cancer Research 40:2433-36.

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