Novocastra™ Lyophilized Mouse Monoclonal Antibody Parathyroid Hormone

Product Code: NCL-PTH-488

Intended Use	FOR RESEARCH USE ONLY.
Specificity	Human parathyroid hormone.
Clone	105G7
Ig Class	IgG2a
Antigen Used for Immunizations	Prokaryotic recombinant protein corresponding to the entire human parathyroid hormone molecule.
Hybridoma Partner	Mouse myeloma (p3-NS1-Ag4-1).
Preparation	Lyophilized tissue culture supernatant containing 15 mM sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
Effective on Frozen Tissue	Not evaluated.
Effective on Paraffin Wax Embedded Tissue	Yes
Recommendations on Use	Immunohistochemistry: Typical working dilution 1:150–1:300. 60 minutes primary antibody incubation at 25 °C. Standard ABC technique. Western Blotting: Not evaluated.
Positive Controls	Immunohistochemistry: Parathyroid.
Staining Pattern	Cytoplasmic and membrane.
Storage and Stability	Store unopened lyophilized antibody at 4 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
General Overview	The parathyroid glands are small, oval, endocrine glands closely associated with the thyroid gland. The glands regulate serum calcium and phosphate levels via parathyroid hormone (parathormone). Parathyroid hormone raises serum calcium levels by a direct mechanism on the bone increasing the rate of osteoclastic resorption and promoting breakdown of the bone matrix, by increasing the renal tubular reabsorption of calcium ions and inhibiting the reabsorption of phosphate ions from the glomerular filtrate and finally by promoting the absorption of calcium from the small intestine, involving vitamin D. Parathyroid hormone is the most important regulator of blood calcium levels and is essential to life whereas calcitonin appears only to provide a complementary mechanism for fine adjustment. Chief cells are the most abundant cells in the parathyroid gland and are responsible for the secretion of parathyroid hormone.
General References	Chang T C, Tung C C, Hsiao Y L, et al.. Acta Cytologica. 42 (3): 619–624 (1998). Loh K C, Duh Q Y, Shoback D, et al.. Clinical Endocrinology. 48 (4): 435–443 (1998). Westra W H, Pritchett D D, Udelsman R, et al.. American Journal of Surgical Pathology. 22 (5): 538–544 (1998). Luts L, Bergenfelz A, Alumets J, et al.. World Journal of Surgery. 21 (5): 553–563 (1997). Matsushita H, Usui M, Hara M, et al.. American Journal of Pathology. 150 (3): 861–871 (1997). Bergenfelz A, Valdemarsson S, Tibblin S, et al.. Surgery. 119 (6): 624–633 (1996). Weber C J, Russell J, Chryssochoos J T, et al.. World Journal of Surgery. 20 (8): 1010–1014 (1996). Pesce C, Tobia F, Carli F, et al.. Histopathology. 15 (2): 157–166 (1989).

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