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| --- | --- |
| Clone | PTH/911 |
| Source | Mouse Monoclonal |
| Cat #  | PM234-6ml RTUPM234-3ml RTUCM234-0.1ml ConcCM234-0.5ml Conc HAM234-6ml RTU HAM234-3ml RTU  |
| Regulatory Status | IVD |

Parathyroid Hormone

(PTH/911)

**Intended use:**

This antibody is intended for use to qualitatively identify Parathyroid hormone by light microscopy in formalin fixed, paraffin embedded tissue sections using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient’s clinical history and other diagnostic tests. A qualified pathologist must perform evaluation of the test.

**Summary and Explanation:**

Epitope of this MAb maps in the N-terminus of PTH, a hormone produced by the parathyroid gland that regulates the concentration of calcium and phosphorus in extracellular fluid. This hormone elevates blood Ca2+ levels by dissolving the salts in bone and preventing their renal excretion. It is produced in the parathyroid gland as an 84 amino acid single chain polypeptide. It can also be secreted as N-terminal truncated fragments or C-terminal fragments after intracellular degradation, as in case of hypercalcemia. Defects in this gene are a cause of familial isolated hypoparathyroidism (FIH); also called autosomal dominant hypoparathyroidism or autosomal dominant hypocalcemia. FIH is characterized by hypocalcemia and hyperphosphatemia due to inadequate secretion of parathyroid hormone. Symptoms are seizures, tetany and cramps. FIH exist both as autosomal dominant and recessive forms of hypoparathyroidism.

**Immunogen:** A synthetic peptide from the N-terminal of human PTH polypeptide

**Isotype:** Mouse IgG2b kappa

**Reagent Provided:**

 **Concentrated format:** Antibody to PTH is diluted in antibody diluent, with 1% bovine serum

albumin (BSA) and 0.05% sodium azide (NaN3). Recommended dilutions: 1:50 – 1:100.The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be
determined by individual laboratory.

**Pre-diluted format:** PathnSitu ready to use antibodies are pre tittered to optimal staining
 conditions. Further dilution may loose the activity and may yield to sub

 optimal staining.

**Storage Recommendations:** Store at 2°-8°C. Do not use after expiration date provided on the vial.

**Staining Recommendations:**

**Antigen Retrieval Solution:** Use **Tris EDTA Buffer(PathnSitu Cat # PS009)** as antigen retrieval solution

Heat Retrieval Method: Retrieve sections under steam pressure for 15 min using PathnSitu’s MERS (Multi Epitope Retrieval System) then allow solution to cool for 10 minutes then transfer tissue sections/slides to distilled water.

**Primary Antibody:**  Cover the tissue sections with primary antibody and incubate for 30
 min at room temperature when used PathnSitu PolyExcel Detection
 System.

**Detection System:** Refer to PathnSitu PolyExcel detection system protocol or manufacturer’s

 detection kit staining protocol when used other vendor detection system.

**Cellular Localization:** Cytoplasm and secreted

**Positive Control:** Parathyroid gland carcinoma

**Troubleshooting:** Follow the antibody specific protocol recommendations according to data sheet provided. If unusual results occur, contact PathnSitu Technical Support at 040-2701 5544 or techsupport@pathnsitu.com

**Limitations and Warranty:** There are no warranties, expressed or implied, which extend beyond this
 description. PathnSitu is not liable for property damage, personal injury, or
 economic loss caused by this product.

**Bibliography:**  1. Watson, PH and Hanley DA. 1993. Parathyroid hormone: regulation of synthesis and secretion.Clin. Invest. Med. 16:58-77.