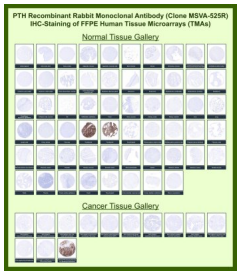
Parathyroid Hormone Antibody for IHC / PTH Immunohistochemistry Antibody [clone MSVA-525R] (V6107)

Catalog No.	Formulation	Size
V6107-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6107-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-525R
UniProt	P01270
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1:100-1:200
Limitations	This PTH / Parathyroid hormone antibody is available for research use only.



Parathyroid Hormone Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Parathyroid hormone / PTH in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using rabbit monoclonal antibody clone MSVA-525R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong cytoplasmic localization in parathyroid gland tissue, specifically in endocrine chief cells responsible for calcium homeostasis, while most other normal tissues and tumor types show minimal to absent staining. Within tumor tissue microarrays, staining is generally absent in non-parathyroid malignancies, reflecting the highly restricted expression pattern of PTH. Evaluation across large TMA panels enables direct comparison of PTH expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported Parathyroid hormone expression profiles in the Human Protein Atlas and support its use as a marker of parathyroid tissue and endocrine differentiation.

Description

Parathyroid hormone (PTH), encoded by the PTH gene, is a peptide hormone produced primarily by chief cells of the

parathyroid glands and plays a central role in calcium and phosphate homeostasis through regulation of bone resorption, renal calcium reabsorption, and vitamin D activation. Parathyroid Hormone Antibody for IHC recognizes this endocrine hormone and is designed for immunohistochemistry studies examining PTH expression in formalin-fixed paraffin-embedded tissues. PTH immunohistochemistry is widely used in endocrine pathology and cancer research to identify parathyroid tissue and to distinguish parathyroid-derived lesions from other neck or thyroid tumors.

Parathyroid Hormone Antibody for IHC clone MSVA-525R is a recombinant rabbit monoclonal antibody developed for sensitive detection of PTH protein in tissue sections. Immunohistochemical detection of PTH is particularly valuable in the evaluation of parathyroid adenoma, parathyroid hyperplasia, and parathyroid carcinoma, where strong cytoplasmic staining of parathyroid chief cells can confirm hormone-producing endocrine tissue. In surgical pathology workflows, a PTH antibody is frequently used alongside markers such as GATA3, chromogranin A, and synaptophysin to characterize parathyroid lesions and differentiate them from thyroid follicular epithelium or metastatic tumors of the neck region.

Within normal tissues, Parathyroid hormone is highly enriched in parathyroid gland cells, where it is synthesized as preproparathyroid hormone and processed into the mature secreted peptide hormone. Immunohistochemistry staining using a Parathyroid Hormone antibody typically demonstrates strong cytoplasmic signal in parathyroid endocrine cells, reflecting hormone synthesis and storage prior to secretion. Because parathyroid tissue is small and often difficult to identify histologically in surgical specimens, PTH immunohistochemistry provides a reliable molecular marker for confirming parathyroid origin in tissue sections and tumor samples.

Recombinant rabbit monoclonal antibodies such as clone MSVA-525R are commonly selected for immunohistochemistry because of their high affinity and consistent epitope recognition, allowing clear visualization of hormone-producing cells in FFPE samples. Tissue microarray studies further support the specificity of Parathyroid Hormone Antibody for IHC by demonstrating expected staining patterns across multiple normal and tumor tissues, with signal largely restricted to parathyroid endocrine cells. This expression pattern aligns with published transcriptomic and proteomic datasets, reinforcing the value of PTH antibodies for endocrine pathology research, tumor classification studies, and tissue microarray-based immunohistochemistry screening.

This PTH antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the Parathyroid Hormone Antibody for IHC should be determined by the researcher.

2. This PTH / Parathyroid hormone antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A synthetic peptide around amino acids 1-34 of human mature-PTH-polypeptide (exact sequence is proprietary) was used as the immunogen for the Parathyroid Hormone Antibody for IHC.

Storage

PTH / Parathyroid hormone antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

PTH antibody, Parathyroid hormone antibody, Parathyroid hormone immunohistochemistry antibody, PTH

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