

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PTHLH/PTHrP in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PTHLH/PTHrP Ala37-Arg175 Accession # P12272
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

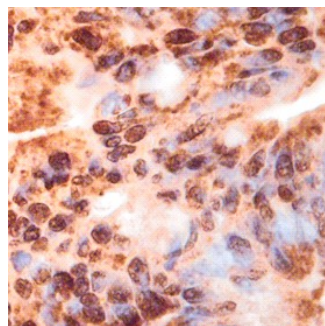
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



PTHLH/PTHrP in Human Colon.
PTHLH/PTHrP was detected in immersion fixed paraffin-embedded sections of human colon using Sheep Anti-Human PTHLH/PTHrP Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6884) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

PTHLH (Parathyroid hormone-like protein; also PTHrP and PLP) is a 17-18 kDa member of the parathyroid hormone family of molecules. It is widely expressed, and serves as an autocrine/paracrine factor for cells of differing tissue type. Although its N-terminus is related to PTH/parathyroid hormone, the molecule, on balance, is not considered a substitute for PTH. Human PTHLH is synthesized as a 177 amino acid (aa) preproprecursor. The preproregion is 36 aa in length and is coupled to a 16 kDa, 141 aa mature molecule (aa 37-177). There are no potential glycosylation sites or identifiable structural domains in the mature region. PTHLH undergoes both alternative splicing and proteolytic processing. Splicing generates two variant isoforms, a 139 aa variant (aa 37-175), and a 20 kDa, 173 aa variant that shows a 34 aa substitution for aa 176-177. Proteolytic processing creates multiple fragments. The three best characterized are PTHLH/PTHrP (1-36) (equivalent to aa 37-72 of the precursor molecule), PTHLH (74-130), and PTHLH (143-175) (otherwise known as osteostatin). These three peptides have distinct functions; the N-terminal peptide is associated with cell growth, the middle peptide with divalent cation transport, and the C-terminal peptide with osteoclast function. Over aa 37-175, human PTHLH shares 86% aa identity with mouse PTHLH.