PTHrP Protein, Human (His)

Cat. No.:	HY-P702562
Synonyms:	Parathyroid hormone related protein; Parathyroid hormone-like protein; Parathyroid like protein; PLP; PTH related protein; PTH-rP; PTHLH; PTHR; PTHR_HUMAN; PTHrP; PTHrP
Species:	Human
Source:	E. coli
Accession:	P12272 (A37-R175)
Gene ID:	5744
Molecular Weight:	19.7 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris-based buffer,50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Parathyroid hormone-related protein (PTHrP) emerges as a pivotal neuroendocrine peptide that orchestrates diverse cellular processes, encompassing growth, development, migration, differentiation, and survival, along with its integral role in epithelial calcium ion transport. Its regulatory influence extends to critical developmental events, such as endochondral bone development and the intricate interactions shaping mammary gland and tooth formation. PTHrP's indispensable contribution to skeletal homeostasis underscores its significance in maintaining bone integrity. Within the mammary context, PTHrP plays a multifaceted role, driving mesenchymal differentiation, promoting bud outgrowth, and modulating responsiveness to bone morphogenetic proteins (BMPs), thus intricately shaping mammary tissue architecture. Additionally, PTHrP influences colon cancer cell behavior, enhancing migration and invasion through integrin alpha-6/beta-1-dependent mechanisms. Notably, osteostatin, a derivative of PTHrP, exhibits potent inhibitory effects on osteoclastic bone resorption, emphasizing its role in bone metabolism regulation.

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