Creative Enzymes®

Teriparatide Acetate

Cat. No. CEPP-003

Lot. No. (See product label)

Introduction

Description Teriparatide is a synthetic peptide composed of the first 34 amino acids of human parathyroid hormone (PTH), which has 84 amino acids in total. This fragment represents the biologically active N-terminal region of endogenous PTH. Teriparatide mediates bone metabolism through multiple mechanisms. Inhibition of Osteoblast Apoptosis: Teriparatide reduces the apoptosis of osteoblasts, thereby increasing their survival time and promoting bone formation. Activation of Lining Cells and Enhancement of Osteoblast Differentiation: Teriparatide regulates the adenylyl cyclase-cAMP-protein kinase A signaling pathway to intermittently stimulate PTH-I receptors on the surface of osteoblasts, lining cells, and bone marrow stromal stem cells. This stimulation promotes the differentiation of osteoblasts and extends their lifespan. Through the phosphatidylinositol phosphate-C-intracellular calcium-protein kinase C signaling pathway, teriparatide stimulates the proliferation of osteoblast cell lines. Teriparatide also inhibits the transactivation activity of PPARγ, reducing the differentiation of stromal cells into adipocytes, thereby increasing the number of osteoblasts. Regulation of Cytokines: Teriparatide induces the binding of IGF-1 to osteoblasts, promoting bone formation. It regulates the bone formation process through the Wnt signaling pathway, thereby increasing bone formation.

Applications For use in osteoporosis. Treatment of osteoporosis in menopausal women and also in male patients with primary or hypogonadal osteoporosis.

Product Information

CAS No. 52232-67-4

Molecular Formula C181H291N55O51S2

Molecular Weight 4117.72 g/mol

Purity 98%

Amino Acid Sequence H-Ser-Val-Ser-Glu-Ile-Gln-Leu-Met-His-Asn-Leu-Gly-Lys-His-Leu-Asn-Ser-Met-Glu-Arg-Val-Glu-Trp-Leu-Arg-Lys-Lys-Leu-Gln-Asp-Val-His-Asn-Phe-OH

Usage and Packaging

Package 1G/Bottle, 10G/Bottle, 50G/Bottle or at customers reqirement.

Storage and Shipping Information

Storage 2~8°C