

Certificate of Analysis

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Product Name: Parathyroid hormone (1-34) (bovine)

Catalog No.: 6303

Batch No.: 1

CAS Number: 12583-68-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{183}H_{288}N_{54}O_{50}S_2$ $C_{183}H_{288}N_{54}O_{50}S_2$
Batch Molecular Weight: 4108.74
Physical Appearance: White lyophilised solid
Net Peptide Content: 74%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Ala-Val-Ser-Glu-Ile-Gln-Phe-Met-His-Asn-Leu-Gly-Lys-His-Leu-Ser-Ser-Met-Glu-Arg-Val-Glu-Trp-Leu-Arg-Lys-Lys-Leu-Gln-Asp-Val-His-Asn-Phe

2. ANALYTICAL DATA

HPLC: Shows 96% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

| Amino Acid Theoretical Actual | | | Amino Acid Theoretical Actual | | |
|-------------------------------|------|------|-------------------------------|------|----------|
| Ala | 1.00 | 0.95 | Lys | 3.00 | 3.03 |
| Arg | 2.00 | 1.97 | Met | 2.00 | 1.87 |
| Asx | 3.00 | 3.13 | Phe | 2.00 | 1.97 |
| Cys | | | Pro | | |
| Glx | 5.00 | 4.99 | Ser | 3.00 | 2.21 |
| Gly | 1.00 | 0.99 | Thr | | |
| His | 3.00 | 2.92 | Trp | 1.00 | Detected |
| Ile | 1.00 | 0.99 | Tyr | | |
| Leu | 4.00 | 3.95 | Val | 3.00 | 3.10 |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name: Parathyroid hormone (1-34) (bovine)**Catalog No.:** 6303**Batch No.:** 1

CAS Number: 12583-68-5

Description:

Parathyroid hormone (PTH) receptor agonist. Increases calcium and inorganic phosphate levels in the serum of young rats. Increases osteocalcin concentrations in the serum of old rats without affecting calcium or phosphate levels.

Physical and Chemical Properties:Batch Molecular Formula: C₁₈₃H₂₈₈N₅₄O₅₀S₂ C₁₈₃H₂₈₈N₅₄O₅₀S₂

Batch Molecular Weight: 4108.74

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ala-Val-Ser-Glu-Ile-Gln-Phe-Met-His-Asn-
Leu-Gly-Lys-His-Leu-Ser-Ser-Met-Glu-Arg-
Val-Glu-Trp-Leu-Arg-Lys-Lys-Leu-Gln-Asp-
Val-His-Asn-Phe

Storage: Store at -20°C**Solubility & Usage Info:**

Soluble to 1 mg/ml in water

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Net Peptide Content: 74% (Remaining weight made up of counterions and residual water).**Counter Ion:** TFA**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

References:

Mitlak *et al* (1992) Intermittent administration of bovine PTH-(1-34) increases serum 1,25-dihydroxyvitamin D concentrations and spinal bone density in senile (23 month) rats. *J.Bone.Minor.Res.* **7** 479. PMID: 1615756.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956