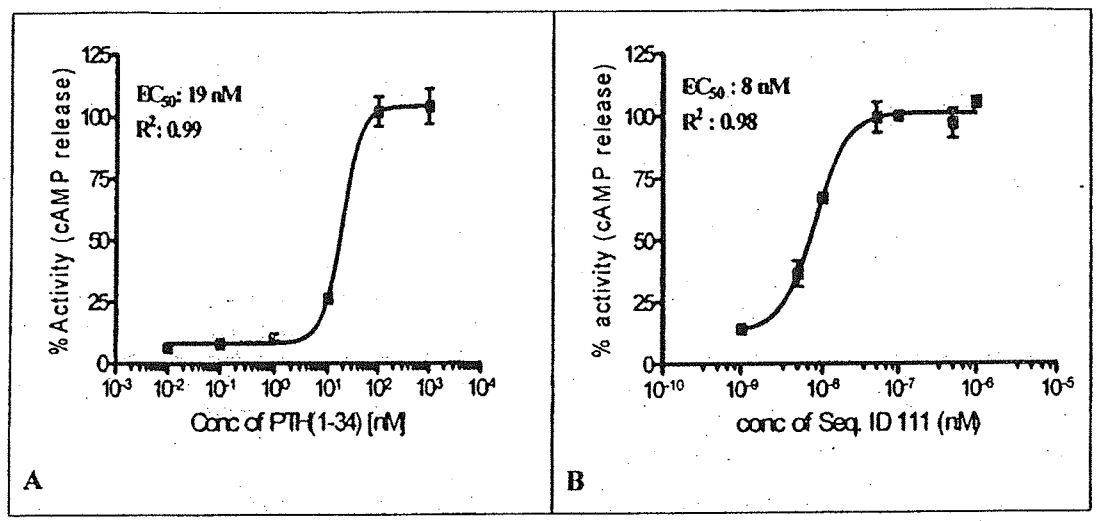


Figure 1: *In vitro* DRC and EC_{50} determination of PTH(1-34) **(Figure A)** and **Seq. ID No. 111 (Figure B)**, in Rat PTH-1 R assay (agonistic activity, measured by amount of cAMP released).

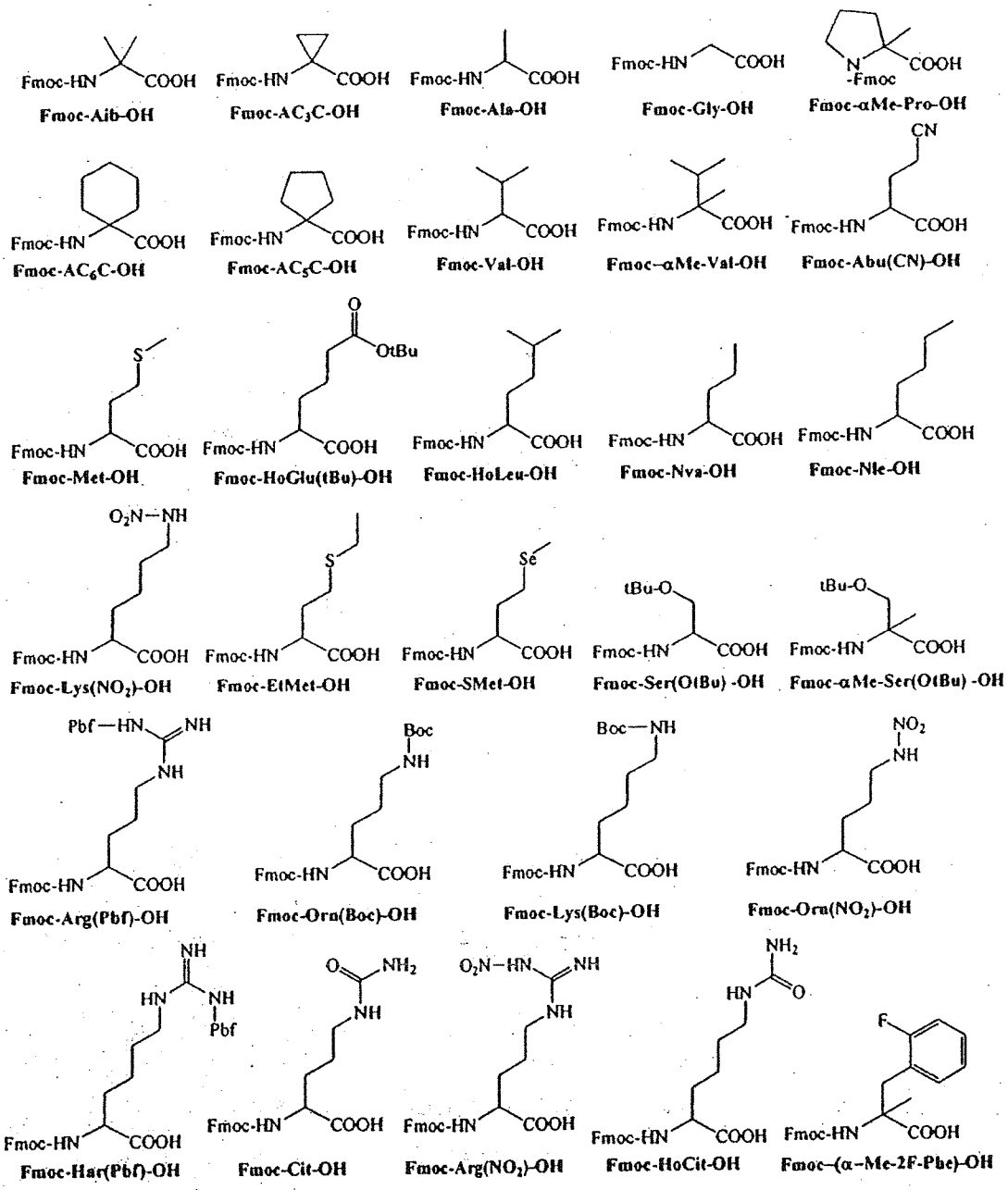


Figure 2: Examples of orthogonally protected amino acids used in Fmoc based-solid phase peptide synthesis (SPPS) of short-chain peptides.

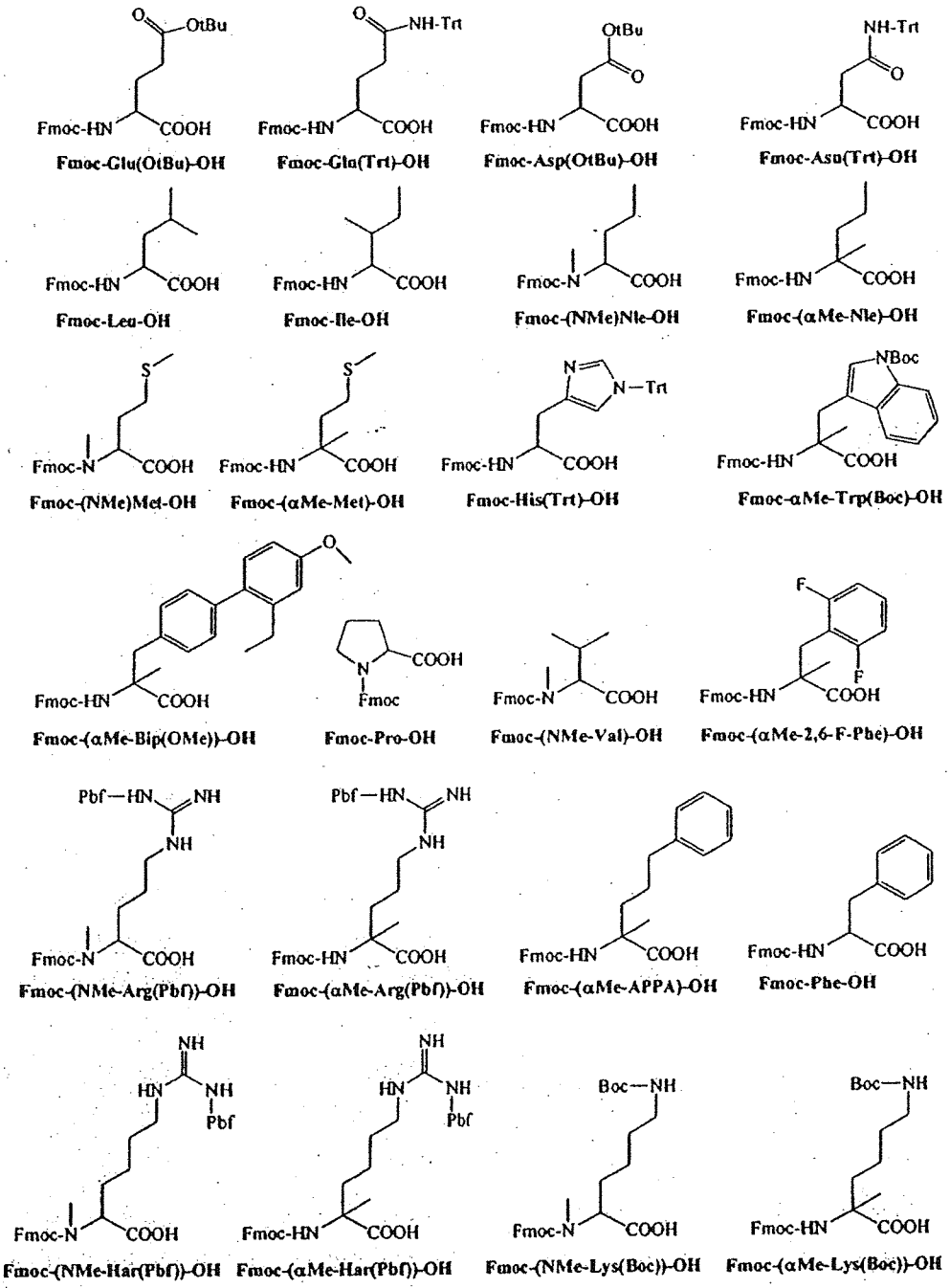


Figure 2 (contd) : Examples of orthogonally protected amino acids used in Fmoc based-solid phase peptide synthesis (SPPS) of short-chain peptides.

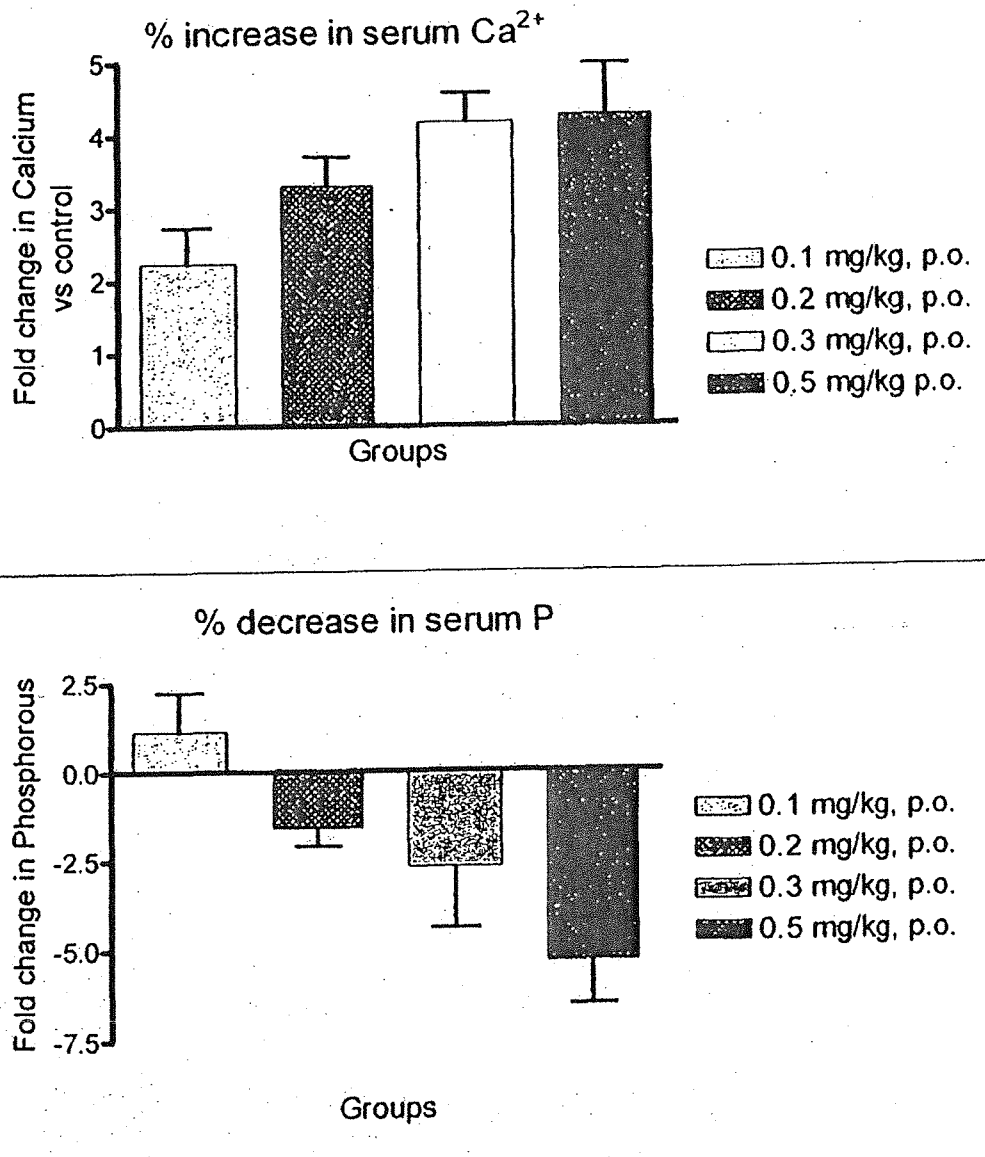
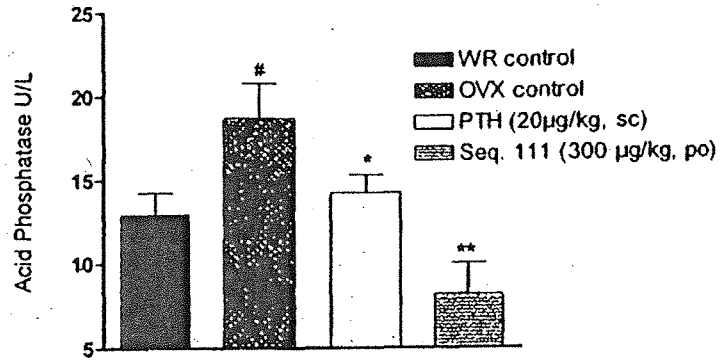
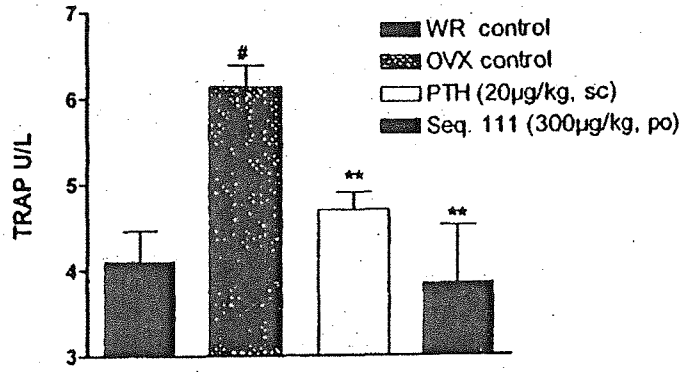


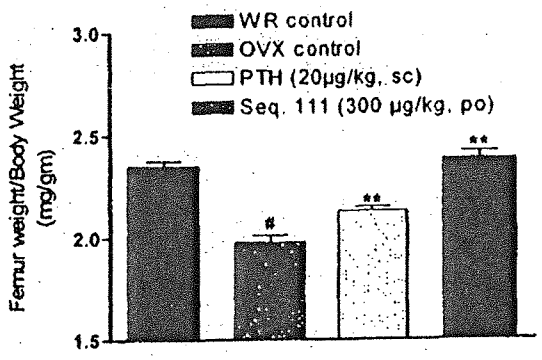
Figure 3: *In vivo* DRC study with **Seq. ID No. 111** (**Figure A:** % increase in serum Ca^{2+} levels; **Figure B:** % decrease in serum PO_4 levels), in OVX Female Rat.



Changes in Acid Phosphatase (A)

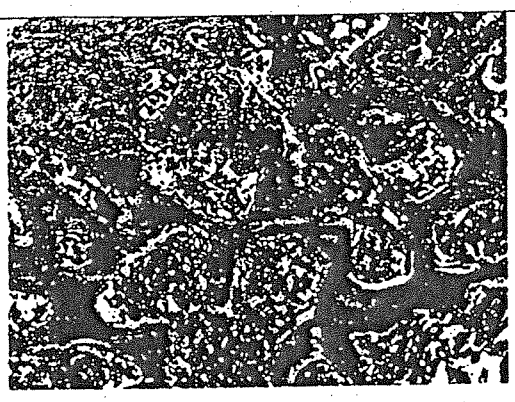


Changes in TRAP (B)

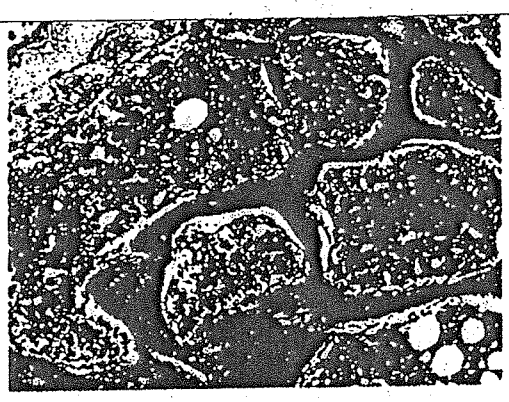


Changes in femur weight (C)

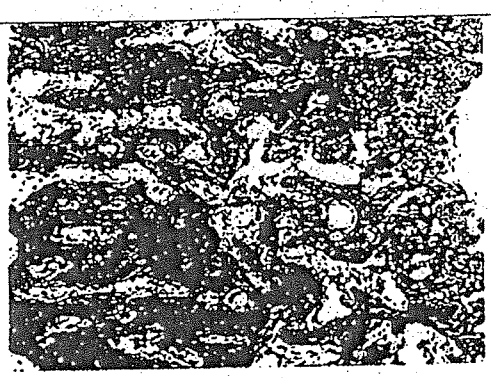
Figure 4: Changes in biochemical parameters and femur weight, in OVX Rat after 6 weeks treatment with **Seq. ID No. 111** and **PTH(1-34)**.



WR control

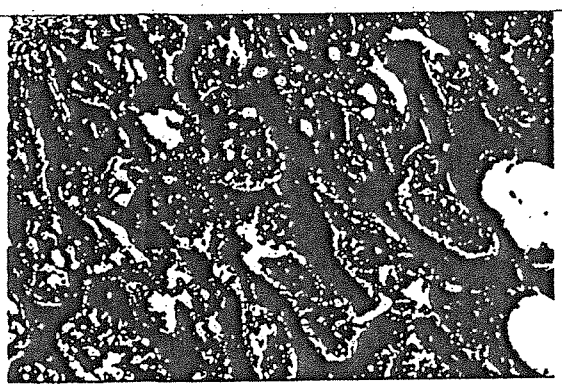


OVX Control

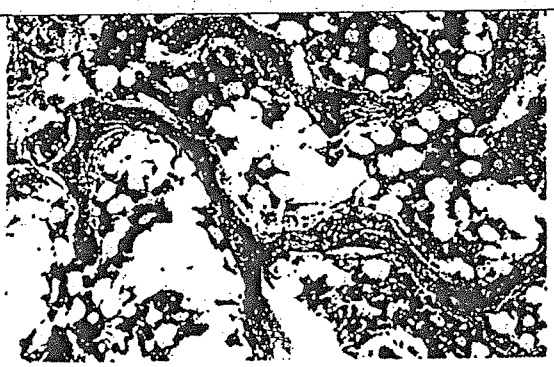


Seq. ID No: 111, dose 0.3 mg/kg po (C)

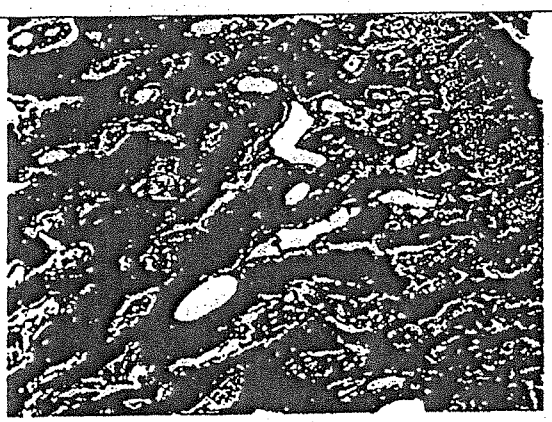
Figure 5: Histological sections of the femur, in OVX rats after 6 weeks treatment with **Seq. ID No. 111.**



WR control (A)



OVX Control (B)

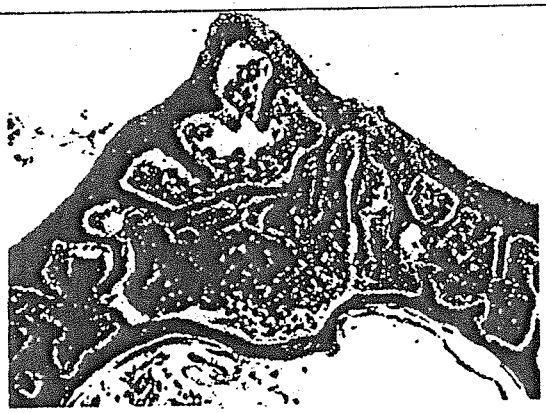


Seq. ID No: 111, dose 0.3 mg/kg po (C)

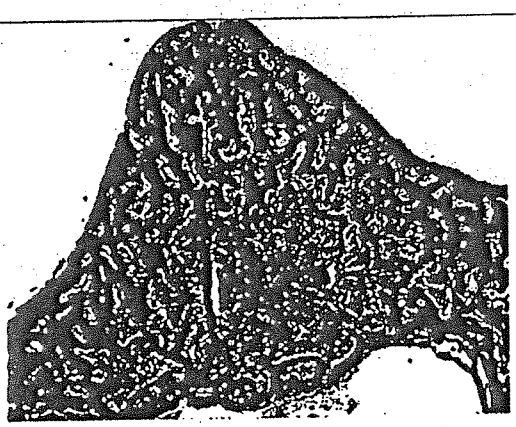
Figure 6: Histological sections of the tibia in OVX rats after 6 weeks treatment with Seq. ID No. 111.



WR control (A)



OVX Control (B)



Seq. ID No: 111, dose 0.3 mg/kg po (C)

Figure 7: Histological sections of the lumbar vertebrae in OVX rats after 6 weeks treatment with **Seq. ID No. 111.**