

ABBREVIATIONS

| | |
|---------|-------------------------------------|
| ALP | Alkaline phosphatase |
| APS | Ammonium per sulphate |
| BMP1 | Bone morphogenetic protein 1 |
| BPs | Bisphosphonates |
| BSA | Bovine serum albumin |
| cDNA | Complementary deoxyribonucleic acid |
| CRTAP | Cartilage associated protein |
| CTX | C terminal telopeptide |
| DDW | Double distilled water |
| DEPC | Diethylpyrocarbonate |
| DMEM | Dulbecco Modified Eagle medium |
| DMSO | Dimethyl sulphoxide |
| DNA | Deoxyribonucleic acid |
| dNTP | 2,4-dinitrophenylhydrazine |
| DXA | Dual energy x-ray absorptiometry |
| EDTA | Ethylenediaminetetraacetic acid |
| ER | Endoplasmic reticulum |
| FDA | Food and Drug Administration |
| FKBP 10 | FK506 Binding protein 10 |
| HCl | Hydrochloric acid |
| HSP | Heat shock protein |
| IL | Interleukin |
| MSCs | Mesenchymal stem cells |
| OI | Osteogenesis Imperfecta |
| OCN | Osteocalcin |

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| P1NP | Procollagen type 1 amino-terminal propeptide |
| PBMCs | Peripheral blood mononuclear cells |
| PBS | Phosphate buffer saline |
| PCR | Polymerase chain reaction |
| PEDF | Pigment epithelium-derived protein |
| PFA | Paraformaldehyde |
| PMSF | Phenyl methyl sulphonyl fluoride |
| PPIB | Peptidylprolyl isomerase B |
| RER | Rough endoplasmic reticulum |
| rhPTH | Recombinant human parathyroid hormone |
| RNA | Ribonucleic acid |
| RT | Room temperature |
| SD | Standard deviation |
| SERPINHI | Serine protease inhibitor |
| Taq | Thermus Aquaticus |
| TE | Tris-EDTA |
| TGF- β | Transforming growth factor- beta |
| Tm | Melting Temperature |
| Tris | Tris (hydroxyl methyl) aminomethane |
| ZOL | Zoledronic acid |

UNITS

| | |
|------------|------------------------|
| bp | Base pair |
| Da | Dalton |
| dL | Deciliter |
| °C | Degree Celsius |
| g | Gram(s) |
| M | Molar |
| Min | Minute |
| mg | Milligram |
| mL | Milliliter |
| mM | Millimolar |
| mol | Mole(s) |
| ng | Nanogram |
| nM | Nanomolar |
| nm | Nanometer |
| OD | Optical density |
| pg | Picogram |
| % | Percentage |
| rpm | Revolutions per minute |
| Sec | Second(s) |
| μg | Microgram(s) |
| μM | Micromolar |
| μL | Microliter |