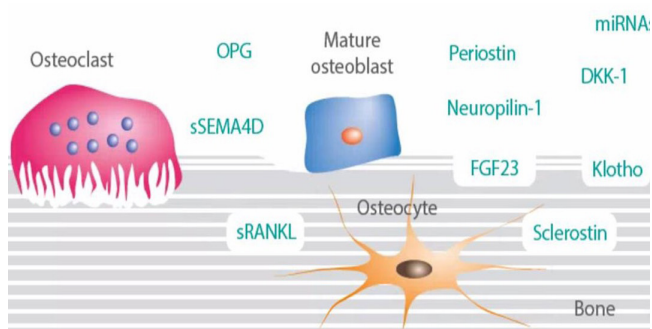


Oxford BioSystems acts as a distributor to supply high quality, reliable products and solutions to clinical and research laboratories in the UK and Republic of Ireland. Our products are developed and manufactured by internationally recognised manufacturers and supported by their technical expertise gained through collaboration with scientists around the world.



The bone cycle consists of different phases and markers of bone metabolism can be categorized as markers of bone formation, markers of bone resorption and markers of the regulation of bone metabolism.

Our portfolio of products for the investigation of bone and cartilage metabolism includes ELISA and RIA kits, purified proteins and specific antibodies. Please visit our website for a complete list of products available.

Vitamin D

Vitamin D deficiency is an important risk factor for rickets, osteomalacia, senile osteoporosis, cancer and pregnancy outcomes. The measurement of both 25OH Vitamin D forms is required to determine the cause of abnormal serum calcium concentrations in patients. Vitamin D intoxication has been shown to cause kidney and tissue damages.

- 1,25(OH)₂ Vitamin D
- 25OH Vitamin D, Total
- Free 25OH Vitamin D
- 25OH Vitamin D₃

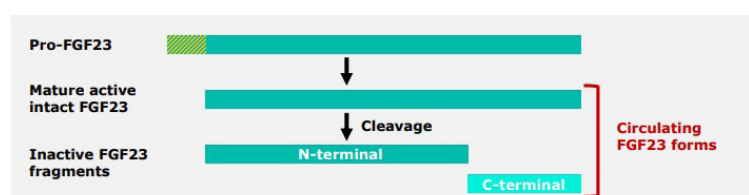


Sclerostin ELISA and Bioactive Sclerostin ELISA

Sclerostin is a 22.5 kDa secreted glycoprotein that is a potent inhibitor of Wnt signalling. It acts by binding to the Wnt-coreceptor LRP5/6 thus inhibiting bone formation by regulating osteoblast function and promoting osteoblast apoptosis. Sclerostin has emerged as a promising circulating marker of diabetic bone disease. It may not only reflect the degree of osteocyte dysfunction and the suppression of bone formation that occurs in this disease, but it may also potentially reflect the vascular alterations that are associated with specific bone alterations such as cortical porosity.

FGF23 (C-Terminal and Intact) ELISAs

FGF23 (fibroblast growth factor 23) is a member of the fibroblast growth factor family and controls phosphate and vitamin D homeostasis. The main source of FGF23 is osteocytes in the bone and it is present in the circulation as hormonally intact FGF23 and inactive N-terminal and C-terminal fragments.



Free soluble RANKL ELISA

RANKL, the receptor activator of nuclear factor kappa B ligand, a member of the tumour necrosis factor (TNF) family, is the main stimulatory factor for the formation of mature osteoclasts and is essential for their survival. RANKL activates its specific receptor RANK, located on osteoclasts and dendritic cells.

PINP

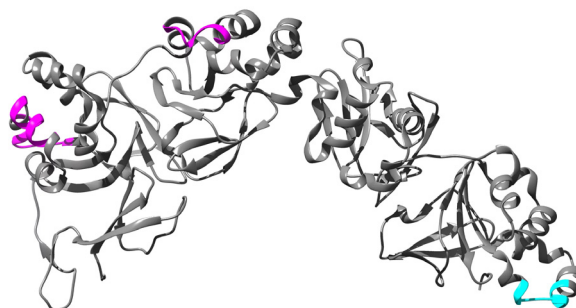
Intact PINP is liberated into the blood stream during the formation of new bone. The concentration of PINP is directly related to the rate of bone turnover. Measuring the level of PINP is helpful in the identification of patients at high risk of fracture, and in monitoring the effectiveness of osteoporosis treatment. It is a dynamic marker showing the rate of bone turnover.

ICTP

Carboxyterminal cross-linked telopeptide of type I collagen is a crosslinked product of collagen degradation and is released from bone when it is being degraded under pathological conditions. It is measured to help in the early detection of skeletal bone metastases in breast, lung, and prostate cancers, and for the detection of minor changes in bone turnover much earlier than seen in a bone scan.

Periostin ELISA

Periostin is associated with epithelial-mesenchymal transition in cancer and the differentiation of mesenchyme in the developing heart. Periostin has functions in osteology, tissue repair, oncology, cardiovascular and respiratory diseases, and in various inflammatory settings.



Osteocalcin

Osteocalcin is synthesised in the bone by osteoblasts and is the major non-collagen protein of the bone matrix. Measurement of osteocalcin in the circulation can aid in monitoring bone metabolism.

Dickkopf-1 (DKK-1) ELISA

DKK-1 is a 25.8 kDa secreted protein functioning as antagonist of the canonical Wnt signalling pathway. DKK-1 is a biomarker of cancer progression and prognosis as well as potential therapeutic target in various types of malignancies. It is associated with the formation of bone metastasis and osteolytic bone lesions.

Osteoprotegerin (OPG) ELISA

Osteoprotegerin (OPG) or osteoclast inhibitory factor (OCIF) is a glycoprotein of the tumour necrosis factor receptor superfamily encoded by the TNFRSF11B gene. OPG is produced by many tissues and cell types including osteoblasts, breast tissue, vascular endothelial cells as well as B cells and dendritic cells in the immune system.

Our products are manufactured by companies including:

Biomedica Medizinprodukte GmbH, Austria

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