Serum CrossLaps One Step ELISA. First application of monoclonal antibodies for measurement in serum of bone-related degradation products from C-terminal telopeptides of type I collagen

We have developed a two-site ELISA for measurement in serum of bone-related degradation products derived from C-terminal telopeptides of type I collagen. The assay is based on the application of two highly specific monoclonal antibodies against the amino acid sequence of AHD-beta-GGR, where the aspartic acid residue (D) is beta-isomerized. In a one-step incubation procedure, the degradation products containing cross-linked diisomerized EKAHD-beta-GGR peptides are captured by a biotinylated antibody and a peroxidase-conjugated antibody. The generated complex is then bound to the streptavidin surface via the biotin conjugate. Desalted urinary antigens are used for standardization, and parallelism is observed with serum samples. Results are obtained in

General information
Publication status: Published
Organisations: Osteometer BioTech A/S, Center for Clinical and Basic Research
Contributors: Rosenquist, C., Fledelius, C., Christgau, S., Pedersen, B. J., Bonde, M., Qvist, P., Christiansen, C.
Pages: 2281-2289
Publication date: 1998
Peer-reviewed: Yes

Publication information
Journal: Clinical Chemistry
Volume: 44
Issue number: 11
ISSN (Print): 0009-9147
Original language: English
Keywords: MEDICAL, HORMONE REPLACEMENT THERAPY, ENZYME-IMMUNOASSAY, N-TELOPEPTIDES, RESORPTION, MARKER, OSTEOPOROSIS, DISEASE, URINE, CONJUGATION, Adult, Aged, Animals, Antibodies, Monoclonal, Biological Markers, Bone Resorption, Bone and Bones, Chromatography, High Pressure Liquid, Collagen, Collagen Type I, Drug Stability, Enzyme-Linked Immunosorbent Assay, Estrogen Replacement Therapy, Female, Humans, Mice, Mice, Inbred BALB C, Middle Aged, Molecular Weight, Peptides, Postmenopause, Premenopause, Retrospective Studies, collagen type I trimeric cross-linked peptide, 9007-34-5 Collagen, collagen type 1, monoclonal antibody, adult, aged, article, carboxy terminal sequence, controlled study, enzyme linked immunosorbent assay, female, human, major clinical study, osteolysis, postmenopause, protein blood level, protein determination, protein urine level, bone resorption rate assessment, Primates Mammalia Vertebrata Chordata Animalia (Animals, Chordates, Humans, Mammals, Primates, Vertebrates) - Hominidae [86215] human female, postmenopause, AHD-beta-GGR amino acid sequence, bone-related telopeptide degradation products measurement, serum levels, EKAHD-beta-GGR amino acid sequence, monoclonal antibodies, type I collagen carboxy-terminal telopeptides, 10050, Biochemistry methods - General, 10060, Biochemistry studies - General, 18001, Bones, joints, fasciae, connective and adipose tissue - General and methods, 22002, Pharmacology - General, Allied Medical Sciences, hormone replacement therapy bone effects, therapeutic method, Serum CrossLaps One Step ELISA detection method, Clinical Chemistry, Methods and Techniques
Source: FindIt
Source ID: 60763660
Research output: Contribution to journal › Journal article – Annual report year: 1998 › Research › peer-review