Human Cross-linked Carboxy-terminal telopeptide of type I collagen (CTX-I) ELISA Kit

Catalog No: #EK7572

Package Size: #EK7572-1 48T #EK7572-2 96T

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Description

Product Name	Human Cross-linked Carboxy-terminal telopeptide of type I collagen (CTX-I) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

Application Details

Detect Range:3.12-200 ng/mL

Sensitivity:1.04 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate CTX-I in samples. An antibody specific for CTX-I has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyCTX-I present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for CTX-I is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of CTX-I bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:Type I collagen is a heterotrimer consisting of two α1(I) chains and one α2(I) chain. NTx assays are sensitive and specific assays that can be used to indicate subtle changes in levels of bone resorption. NTx serum and urine assays provide a quantitative measurement of the cross-linked N-telopeptides of bone type I collagen (NTx). NTx is a specific biochemical indicator of bone resorption that is generated as a result of osteoclast activity on bone. The NTx molecule is specific to bone due to the unique amino acid sequence and orientation of the cross-linked alpha-2 (I) N-telopeptide.

NTx provides a dynamic indicator of the current level of bone resorption, shows significantly earlier response to therapy (with 3-6 months) and, when used in conjunction with bone mineral density (BMD), gives a more complete picture of bone status than either technology alone.

Note: This product is for in vitro research use only