Human Carboxyterminal propeptide of type I procollagen (PICP) ELISA Kit

Catalog No: #EK8697

Package Size: #EK8697-1 48T #EK8697-2 96T

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Description

Product Name	Human Carboxyterminal propeptide of type I procollagen (PICP) 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:0.156-10 ng/mL

Sensitivity:0.067 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 PINP in samples. An antibody specific for PINP has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyPINP present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PINP 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 PINP bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:The carboxyterminal propeptide of type I procollagen (PICP) and the aminoterminal propeptide of type I procollagen (PINP) are enzymatically removed from the procollagen molecule by specific proteases.

PICP and PINP are indicators of the synthesis of type I collagen. Cleavage of PICP is required for the initiation of fibril formation, whereas PINP may be retained in the collagen molecule resulting in type I pN-collagen. The retention of PINP is transient, unlike the presence of IIIpN-collagen, and has been considered to regulate fibril diameter (Fleischmajer et al. 1985).

PICP is a trimeric, globular protein consisting of three polypeptide chains: two proα1(I) and one proα2(I) chains. The molecular mass of PICP is 100 000 and it is cleared by mannose receptors in liver endothelial cells (Smedsr?d et al. 1990).

Note: This product is for in vitro research use only