

**CPA447Hu01 100µg**  
**Composite C-Peptide (CP)**  
**Organism Species: Homo sapiens (Human)**  
***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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9th Edition (Revised in Jul, 2013)

## **[ PROPERTIES ]**

**Residues:** Synthetic Peptide

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Formulation:** Supplied as lyophilized form in PBS, pH7.4, containing 5% sucrose, 0.01% sarcosyl.

**Predicted isoelectric point:** 3.6

**Predicted Molecular Mass:** 2744.0Da

**Applications:** SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

## **[ RELEVANCE ]**

The connecting peptide, or C-peptide, is a short 31-amino-acid protein that connects insulin's A-chain to its B-chain in the proinsulin molecule. C-peptide has been shown to bind to the surface of a number of cell types such as neuronal, endothelial, fibroblast and renal tubular, at nanomolar concentrations to a receptor that is likely G-protein-coupled. Newly diagnosed diabetes patients often get their C-peptide levels measured as a means of distinguishing type 1 diabetes and type 2 diabetes. C-peptide levels are measured instead of insulin levels because insulin concentration in the portal vein ranges from two to ten times higher than in the peripheral circulation. C-peptide is also used for determining the possibility of gastrinomas associated with Multiple Endocrine Neoplasm syndromes.

## **[ USAGE ]**

Reconstitute in sterile PBS, pH7.2-pH7.4.

## **[ STORAGE AND STABILITY ]**

**Storage: Avoid repeated freeze/thaw cycles.**

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCES ]**

The synthetic peptide's sequence is listed below.

EAENPQAGAVELGGGLGGLQALALEGPPQ