



Total Collagen Assay Kit (Colorimetric)

Product Information

Cat

Kit-1029

Common Name

Collagen

Cat.No.

Kit-1029

Description

Collagen is the most abundant insoluble protein found in the extracellular matrix and connective tissues. It can be found in skin, tendons, bone, cartilage, muscle, vitreous humor and ligaments, among other tissues. There are more than sixteen - well characterized types of collagens, but types I, II and III collagen comprise more than 80% content in mammals. The triple-helical structure of collagen is quite unique: it consists of a repeating pattern of a basic trimer: Glycine-Proline-Hydroxyproline. In cells, collagens are secreted as procollagens and these chains are transported into the Endoplasmic Reticulum, where, numerous post-translational modifications lead to the formation of a triple helix with disulfide bonds. Excessive production of collagen is linked to pathological conditions including liver cirrhosis, lung fibrosis, and tumor growth. Collagen Assay Kit is a simple and sensitive assay to detect small amounts of collagens in a variety of samples. The assay is based on the acid hydrolysis of samples to form hydrolysates and Hydroxyproline. This released Hydroxyproline gets oxidized to form a reaction intermediate, which further in the reaction, forms a chromophore (Abs 560 nm). The assay is simple, sensitive and specific for collagen and can detect as low as 0.5 μ g of collagen in a variety of samples such as tissue homogenates, biological fluids and purified proteins.

Applications

Measurement of collagen in various sample types.

Storage

-20°C



Total Collagen Assay Kit (Colorimetric)

Shipping

Gel Pack

Size

100 assays

Kit Components

Oxidation Buffer; Chloramine T Concentrate; Perchloric Acid/Isopropanol Solution; DMAB Concentrate (in DMSO); Collagen I Standard (2 mg/ml)

Target Species

Mammalian tissues, protein/peptide hydrolysates, serum, urine

Detection method Absorbance (OD = 560 nm).

Features & Benefits

Simple, fast and convenient assay; Can detect as low as 0.5 µg of collagen in a variety of samples