

## Bilirubin Colorimetric Assay Kit

### Product Information

**Cat.No.**

Kit-0129

**Product Overview**

Bilirubin Assay Kit (Colorimetric) is used to measure bilirubin.

**Description**

Bilirubin, a degradation product of heme catabolism, is a non-polar molecule. There are two forms of bilirubin: water-soluble (conjugated or direct) and water-insoluble (unconjugated or indirect) bilirubin. Bilirubin is produced in the endoplasmic reticulum as unconjugated bilirubin, which binds to albumin in plasma and forms albumin-bilirubin complex. This complex is transported to the liver, where it is conjugated with glucuronic acid and forms conjugated bilirubin. Bilirubin has potent antioxidant, anti-inflammatory and autoimmune properties. Bilirubin concentration in human body depends on gender, drug intake, age, etc. Low serum bilirubin is directly correlated with pathological conditions including diabetes mellitus, metabolic syndrome, and cardiovascular diseases. However, high bilirubin indicates hemolysis, jaundice, Gilbert's syndrome, hepatitis, drug toxicity, and possible blockage of bile ducts. Bilirubin Assay Kit utilizes the Jendrassik-Grof principle to detect bilirubin. Total bilirubin (unconjugated + conjugated) concentration is determined in the presence of a catalyst, where bilirubin reacts with a diazo- salt to form azobilirubin, which absorbs at 600 nm. Direct bilirubin (conjugated) is determined in the absence of catalyst (550 nm).

**Applications**

Measurement of bilirubin concentration in serum

**Target Species**

Mammals

**Usage**

For research use only (RUO)

**Storage**

## Bilirubin Colorimetric Assay Kit

Store the kit at -20°C, protected from light.

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### Kit Components

Bilirubin Reagent 1 2.5 mL Bilirubin Reagent 2 1 mL Catalyst 15 mL Total Bilirubin Probe 10 mL Direct Bilirubin Probe 20 mL Bilirubin Standard (0.2 µg/µL) 200 µL x 2 DMSO (Anhydrous) 3.5 mL

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**Detection method** Colorimetric

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### Compatible Sample Types

Biological fluids: Serum

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