Datasheet for ABIN1000256

Bilirubin Assay Kit

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Overview

Quantity:	180 tests
Target:	Bilirubin
Application:	Biochemical Assay (BCA)

Product Details

Sample Type:	Serum
Specificity:	0.16 mg/dL
Characteristics:	Sensitive and accurate. Detection limit 0.16 mg/dL bilirubin in 96-well plate assay. Simple and high-throughput. The procedure involves addition of a single working reagent and incubation for 10 min. Can be readily automated as a high-throughput assay in 96-well plates for thousands of samples per day.
Components:	Reagent A: 30 mL. Reagent B: 10 mL. Reagent C: 30 mL. Saline: 50 mL. Calibrator: 2 mL (equivalent to 5 mg/dL Bilirubin).
Material not included:	Pipeting devices and accessories, 96-well plates and plate reader.

Target Details

Target:	Bilirubin
Background:	Quantitative determination of bilirubin by colorimetric (530nm) method. Procedure: 10 min. Bilirubin is one of the degradation products of hemoglobin formed when red blood cells die. Bilirubin exists in the insoluble unconjugated form (also indirect bilirubin), or soluble

Target Details

glucuronide conjugated form bilirubin (also direct bilirubin). Conjugated bilirubin moves into the bile canaliculi of the liver and then to the gall bladder. When stimulated by eating, bile (including the conjugated bilirubin) is excreted into the small intestine, where bilirubin is converted into urobilinogen. Bilirubin is a key diagnostic indicator. High levels of bilirubin result when too much hemoglobin is broken down or the removal of bilirubin does not function properly. The accumulation of bilirubin in the body causes jaundice. Simple and automation-ready procedures for quantitative determination of bilirubin find wide applications in research and drug discovery. This bilirubin assay kit is designed to measure bilirubin in blood specimen in 96-well or cuvette formats. The improved Jendrassik- Grof method utilizes the reaction of bilirubin with diazotized sulfanilic acid, in which a red colored product is formed. The intensity of the color, measured at 510-550nm, is an accurate measure of the bilirubin level in the sample. Total bilirubin is assessed using caffeine benzoate to split bilirubin from the unconjugated bilirubin protein complex.

Application Details

Application Notes:	Direct Assays: total and direct bilirubin in serum or plasma. Pharmacology: effects of drugs on bilirubin metabolism.
Protocol:	Procedure using 96-well plate: 1. Reagent Preparation: prepare at least 200 L/well. Total Bilirubin is determined with Working Reagent that contains Reagent C, and Direct Bilirubin with Working Reagent that does not contain Reagent C but saline instead. 2. Calibrator: transfer 50 L H2O and 50 L Calibrator into two wells of clear-bottom 96-well plate, add 200 L H2O. The volume in each well 250 L. Samples: transfer 50 L sample into separate wells, add 200 L respective Working Reagent (i.e. for total bilirubin and/or direct bilirubin) and 200 L Blank Reagent to the sample wells. 3. Incubate 10 min and read OD530nm (510 to 550nm). Procedure using Cuvet: 1. Prepare at least 800 L/well fresh Working Reagent. 2. Transfer 200 L H2O and 200 L Calibrator into two cuvets, add 800 L H2O. Transfer 200 L sample into cuvet, add 800 L Working Reagent. 3. Incubate 10 min and read OD530nm (510 to 550nm).
Restrictions:	For Research Use only

Handling

Storage:	4 °C

Publications

Product cited in:

Guo, Li, Ling, Feng, Xia: "Anthocyanin inhibits high glucose-induced hepatic mtGPAT1 activation and prevents fatty acid synthesis through PKCζ." in: **Journal of lipid research**, Vol. 52, Issue 5, pp. 908-22, (2011) (PubMed).

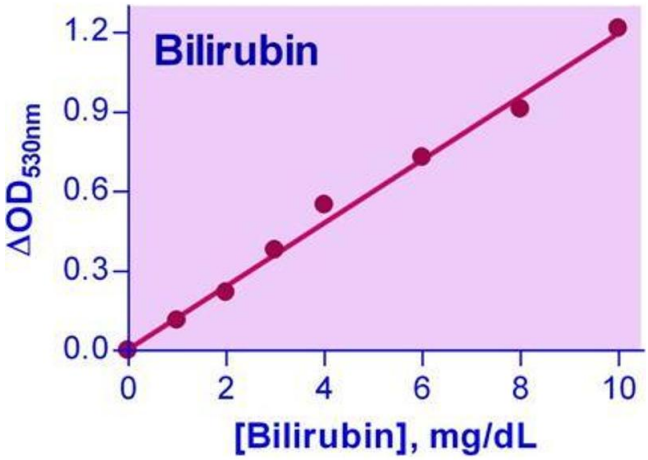
Bytautiene, Tamayo, Kechichian, Drever, Gamble, Hankins, Saade: "Prepregnancy obesity and sFlt1-induced preeclampsia in mice: developmental programming model of metabolic syndrome." in: **American journal of obstetrics and gynecology**, Vol. 204, Issue 5, pp. 398.e1-8, (2011) (PubMed).

Orban, Palczewska, Palczewski: "Retinyl ester storage particles (retinosomes) from the retinal pigmented epithelium resemble lipid droplets in other tissues." in: **The Journal of biological chemistry**, Vol. 286, Issue 19, pp. 17248-58, (2011) (PubMed).

Uddin, Duy, Cinar, Tesfaye, Tholen, Juengst, Looft, Schellander: "Detection of quantitative trait loci affecting serum cholesterol, LDL, HDL, and triglyceride in pigs." in: **BMC genetics**, Vol. 12, pp. 62, (2011) (PubMed).

Oh, Kim, Jang, Byeon, Ryu, Kim, Ha: "Semipurified fractions from the submerged-culture broth of Agaricus blazei Murill reduce blood glucose levels in streptozotocin-induced diabetic rats." in: **Journal of agricultural and food chemistry**, Vol. 58, Issue 7, pp. 4113-9, (2010) (PubMed).

There are more publications referencing this product on: Product page



Biochemical Assay

Image 1.