

Bilirubin Assay Kit (Total and Direct, Colorimetric)

ab235627

[6 References](#) [3 Images](#)

Overview

Product name	Bilirubin Assay Kit (Total and Direct, Colorimetric)
Detection method	Colorimetric
Sample type	Serum
Assay type	Quantitative
Product overview	Bilirubin (Total and Direct) Colorimetric Assay Kit (ab235627) 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).

Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K553 Bilirubin (Total and Direct) Colorimetric Assay Kit. K553-100 is the same size as the 100 test size of ab235627.</p> <p>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.</p>
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Platform	Microplate reader
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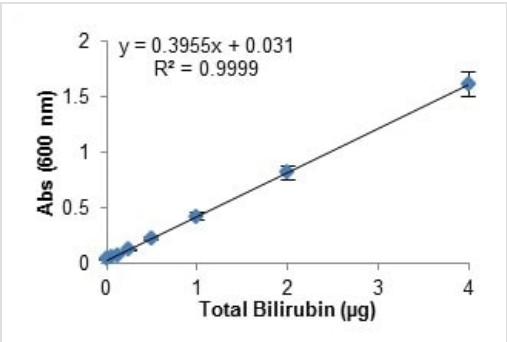
Properties

Storage instructions	Store at -20°C. Please refer to protocols.
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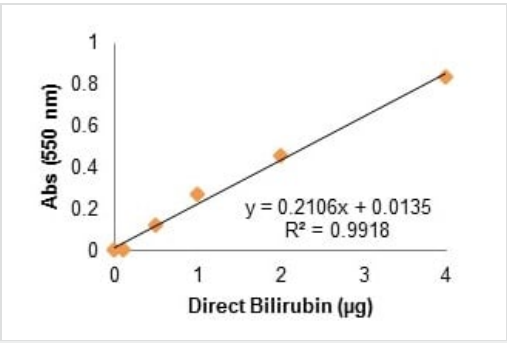
Components	100 tests
Bilirubin Reagent 1	1 x 2.5ml

Components	100 tests
Bilirubin Reagent 2	1 x 1ml
Total Bilirubin Probe	1 x 10ml
Direct Bilirubin Probe	1 x 20ml
Catalyst I	1 x 15ml
Bilirubin Standard	2 x 200µl
DMSO I	1 x 3.5ml

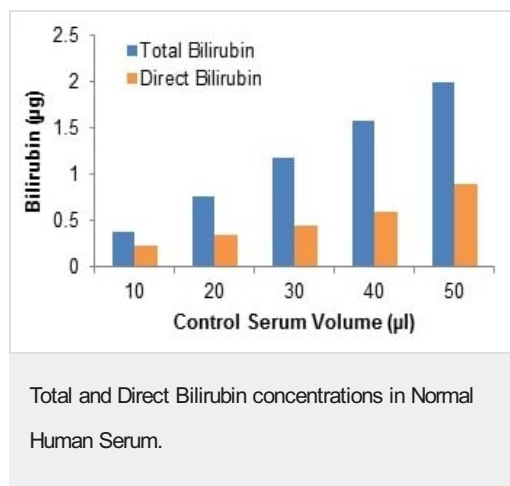
Images



Total Bilirubin Standard Curve (0 - 4 µg).



Direct Bilirubin Standard Curve (0 - 4 µg).



Different volumes of human serum (10 - 50 µL) were assayed following kit protocols. Reported concentrations (in mg/dL): Total Bilirubin: 4; Direct Bilirubin: 1.5. Experimental concentrations (calculated as the average of estimated bilirubin in five different human serum volumes ranging from 10 to 50 µL): Total: 3.8 mg/dL; Direct: 1.75 mg/dL.

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