



## Total Bile Acids (TBA) Assay Kit (Colorimetric)

### Product Information

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**Cat**

Kit-1068

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**Description**

Bile Acids (BA) make 67% of the total composition of Bile. They are 24-carbon steroids generated during cholesterol metabolism. They form conjugates with either glycine or taurine to form bile salts. Five of the BAs account for more than 99% of the total population found in biofluids. The average composition in healthy individuals includes conjugates of cholic, chenodeoxycholic, deoxycholic and lithocholic acids. Bile acids are critical due to their ability to solubilize lipids by forming micelles with cholesterol, and fatty acids. Their synthesis is not only critical for the removal of cholesterol from the body but they are also needed for proper uptake of dietary lipids into the small intestine. The measurement of circulatory Total Bile Acids (TBA) therefore provides information about hepatic functions and liver diseases such as jaundice, and hepatocellular injury. TBA estimation can detect liver damage during early stages and permits patients to get treated before hepatic damages become irreversible. In addition, Bile Acids participate as signaling molecules interacting with G-protein coupled receptors (GPCR), TGR5, and nuclear receptor farnesoid X receptor (FXR). Total Bile Acid Assay Kit provides a simple, sensitive, and high-throughput adaptable approach to detect physiological concentration of total bile acids in a variety of biological fluids. The principle of the assay is based on an enzymatic cycling method in the presence of NADH and a chromophore. The reduction of the chromophore produces a stable colorimetric product the absorbance of which can be followed kinetically at 405 nm. This absorbance is directly proportional to the amount of TBA in the sample. Our assay is very specific and sensitive. Other metabolites found in biofluids do not interfere with the assay. The assay can detect as little as 1  $\mu$ M of Bile Acids in a variety of samples.

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**Applications**

Estimation of Bile Acids in various biological samples.



## Total Bile Acids (TBA) Assay Kit (Colorimetric)

### Storage

-20°C

### Shipping

Gel Pack

### Size

100 assays

### Kit Components

TBA Cycling Assay Buffer; TBA Probe Buffer; TBA Probe; TBA Cycling Enzyme Mix; NADH; TBA Standard (100 mM)

### Target Species

Mammalian

**Detection method** Absorbance (405 nm).

### Features & Benefits

Simple, fast and convenient assay;

Can detect as low as 1  $\mu$ M Bile acids in a variety of samples.