

# Steatosis Colorimetric Assay Kit

**Cat. No.** Kit-0806    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Steatosis Colorimetric Assay Kit provides a method for evaluating steatosis risk of drug candidates using Oil Red O to stain neutral lipids in hepatocytes.

### Description

Steatosis, also known as fatty liver, is a pathological process characterized by abnormal accumulation of lipid within cells. There are two distinct patterns of steatosis: macrovesicular and microvesicular. The former is frequently seen in alcohol-induced liver injury, as a complication of metabolic syndrome such as obesity and type II diabetes, and is a marker of the hepatotoxic side effect of certain drugs. Microvesicular steatosis is more commonly related to mitochondrial dysfunction and defects in  $\beta$ -oxidation responsible for fatty liver seen in pregnancy and Reye's syndrome. While simple steatosis may not be associated with significant impairment of liver function, extensive fat accumulation can lead to cirrhosis and even liver failure. Studies on alcohol-induced steatosis revealed a set of transcription factors which are thought to be involved in the process, including SREBP1, PPAR $\alpha$ , and Erg-1. The mechanism of non-alcoholic steatosis formation is poorly understood and little information is available on the pathway(s) responsible for progressive hepatocellular damage following lipid accumulation.

### Usage

For research use only (RUO)

### Storage

Fixative (10X) Room Temperature  
Wash Solution Room Temperature  
Oil Red O Solution 4°C  
Dye Extraction Solution Room Temperature  
Chloroquine Positive Control (25 mM) 4°C  
Steatosis Assay Hematoxylin Room Temperature  
This kit will perform as specified if stored as directed and used before the expiration date indicated on

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



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**Kit Components**

Fixative (10X) 1 vial/10 ml  
Wash Solution 6 vials/30 ml  
Oil Red O Solution 1 vial/25 ml  
Dye Extraction Solution 1 vial/30 ml  
Chloroquine Positive Control (25 mM) 1 vial/100 µl  
Steatosis Assay Hematoxylin 1 vial/30 ml

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