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User Guide

# Lipid Standard

**Lipid Standard for  
Lipid Quantification**

Cat LP02



## Version 1.0

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# Lipid Standard

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## Product Components

### LP02 Lipid Standard

- 1 x Lipid Standard, 1 mg
- 1 x User Guide

## Storage

Store all components at 4°C. Lipid Standard has a shelf life of 12 months from manufacture.

**Please note that the lipid quantification reagent is light-sensitive and should be protected from light until use.**

## Equipment and materials required but not supplied with this kit

- Ultra Pure Water
- Vortex

## Introduction and assay principle

The standard could be used in a reliable colorimetric assay using a plate reader such as in LipoQ but it is not limited to this and can be used in any format requiring a lipid standard curve.

Each tube of Lipid Standard provides 1mg of dried Dipalmitoylphosphatidylcholine (DOPC Lipid).

## Procedure

**Please note: Sulfuric acid is highly corrosive and can damage certain types of plastics. Avoid using plastics that are sensitive to sulfuric acid, and test plastics prior to attempting this assay by adding 100  $\mu\text{L}$  of 18M sulfuric acid and heating to 90°C for 10 minutes. Sulfuric acid should be handled with care (see MSDS). Gloves, a lab coat, and protective eyewear should be worn during handling. Sulfuric acid should be stored in glassware only and pipetted in a fume hood.**

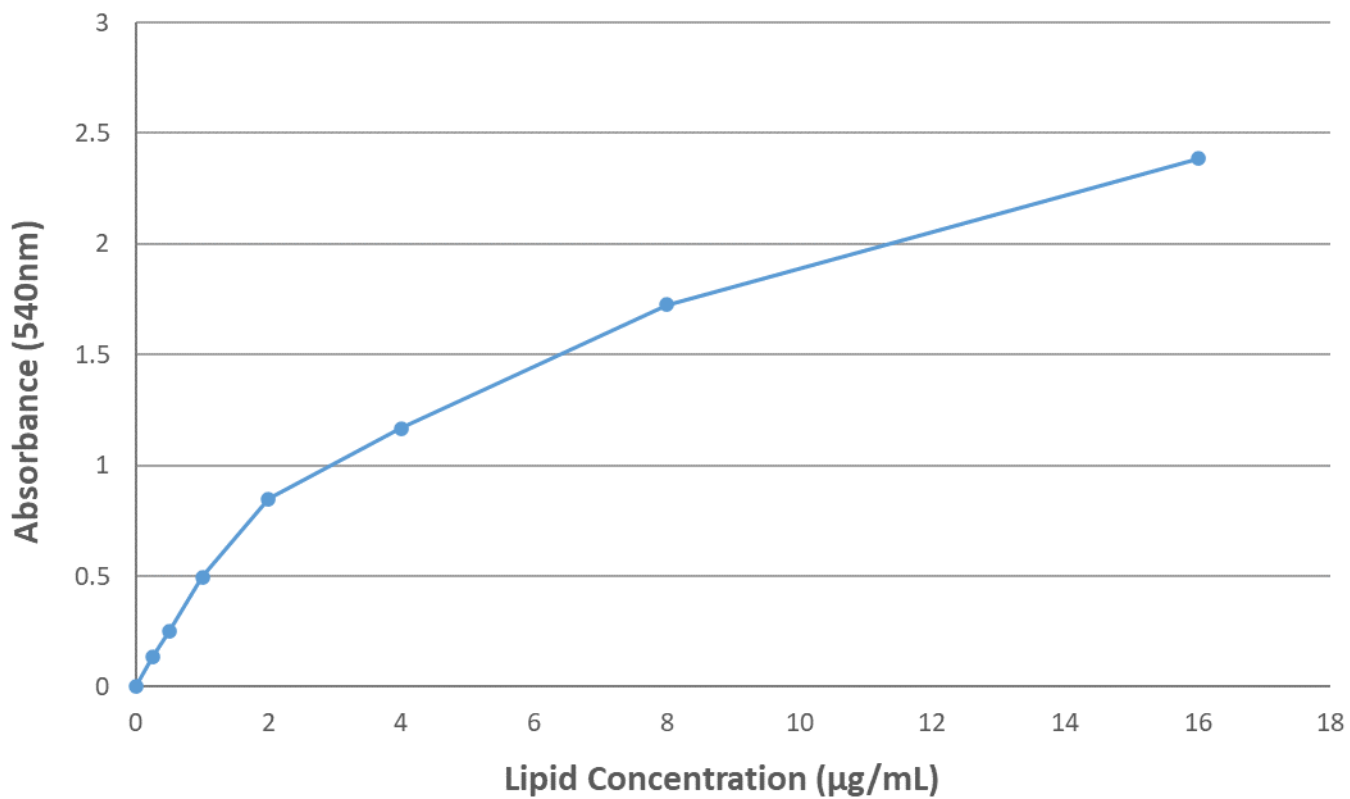
### A. Standard Preparation

1. Add 250  $\mu\text{L}$  deionised water to the dried Lipid Standard powder.
2. Ensure the cap is tightly fastened. Vortex intensively for 2 minutes at max speed.
3. Using a bath sonicator, sonicate at 35 kHz and 45°C for 10 minutes.
4. Ensure the cap is tightly fastened. Vortex intensively for 2 minutes.
5. Prior to assay, form a dilution series of 16  $\mu\text{g}$  – 0.25  $\mu\text{g}$ . See table 1 below.

Lipid standard is stable at 4°C for at least three months once reconstituted. Intensive vortexing is required prior to the use of the lipid standard.

Tube number	Lipid standard ( $\mu\text{L}$ )	Diluted in PBS ( $\mu\text{L}$ )	Lipid standard concentration (500 $\mu\text{L}$ solution)
1	1 mg (resuspended in 250 $\mu\text{L}$ deionised water)	0	4 mg/ml
2	2 $\mu\text{L}$ of Tube #1	498	16 $\mu\text{g}/\text{ml}$
3	250 $\mu\text{L}$ of Tube #2	250	8 $\mu\text{g}/\text{ml}$
4	250 $\mu\text{L}$ of Tube #3	250	4 $\mu\text{g}/\text{ml}$
5	250 $\mu\text{L}$ of Tube #4	250	2 $\mu\text{g}/\text{ml}$
6	250 $\mu\text{L}$ of Tube #5	250	1 $\mu\text{g}/\text{ml}$
7	250 $\mu\text{L}$ of Tube #6	250	0.5 $\mu\text{g}/\text{ml}$
8	250 $\mu\text{L}$ of Tube #7	250	0.25 $\mu\text{g}/\text{ml}$

Table 1. Lipid standard preparation.



Graph 1. Standard curve produced using LipoQ™ lipid quantification reagent upon the lipid standard supplied with the kit.

## Purchaser Notification

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