

Phospholipid Assay Kit

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CATALOG #
AAA44664

PRODUCT SYNONYMS

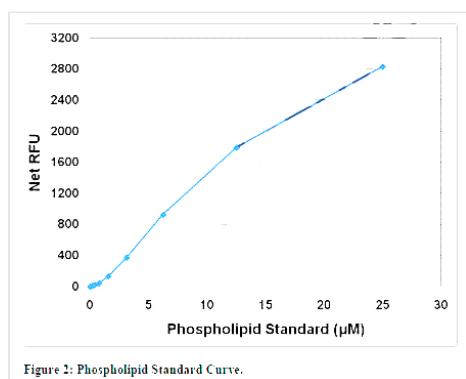
Phospholipid; Phospholipid Assay Kit; Phospholipid assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Store the Hydrolyzing Enzyme at -80 degree C. Store the Phospholipid Standard, Fluorescence Probe, HRP, and Oxidoreductase at -20 degree C or lower. Store the remaining kit components at 4 degree C.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Phospholipid assay kit	Principle of the Assay: The Phospholipid Assay Kit measures phospholipids through a series of enzyme driven reactions. First, a hydrolyzing enzyme reacts with phospholipids, such as lecithins and sphingomyelins, breaking the phosphodiester bond within their structure. Next, an oxidoreductase reacts to generate a peroxide, which is subsequently detected with a highly specific fluorescence probe. Samples and standards are incubated for 30 minutes and then read with a standard 96-well fluorometric plate reader (Ex. 530-570 nm/Em. 590-600 nm). Sample phospholipid levels are determined by comparison with known phospholipid standards.!!Background/Introduction: Phospholipids are important structural lipids that are the major component of cell membranes and lipid bilayers. They contain a hydrophilic head and a hydrophobic tail which give the molecules their unique amphiphilic characteristics. Most phospholipids contain one diglyceride, a phosphate group, and one choline group (Figure 1). Sphingomyelin, lysophosphatidylcholine (lysolecithin), and phosphatidylcholine (lecithin) are predominantly choline-based phospholipids which account for 95% of phospholipids in human serum and plasma. Phosphatidylcholine is the foremost membrane phospholipid in eukaryotic cell membranes and is present in every cell in the body. Determining circulatory levels of phospholipids and lipoproteins is critical to the identification of lipid transport disorders and may be used as markers for heart, liver, or lung diseases. Phospholipid biosynthesis and metabolism is important to membrane structure maintenance and function. Many exert considerable influence on lipid homeostasis. They serve as a pool for many lipid messengers and are a source for bioactive lipids such as phosphatidic acid, diacylglycerol, lysophosphatidylcholine, and others. Phospholipids supply choline in the body, which itself and its derivative compounds form cell signaling molecules such as acetylcholine, platelet activating factor and sphingophosphorylcholine. Energy production and storage, prostaglandin production, blood clotting, cholesterol solubility, fat and bile emulsification, and antioxidant activity are pathways involving phospholipid activity. Due to their decreased toxicity, improved bioavailability and excellent permeability, phospholipids are used for liposomal, ethosomal and other nanoparticle formulations used in drug delivery systems. The Phospholipid Assay Kit is a simple fluorometric assay that measures the amount of choline-based phospholipids present within plasma, serum, tissue homogenates, or cell suspensions in a 96-well microtiter plate format. Each kit provides sufficient reagents to perform up to 96 assays, including blanks, phospholipid standards and samples. The kit's detection sensitivity limit is approximately 150 nM.
Product Categories/Family for Phospholipid assay kit	Metabolism Research; Lipoprotein Metabolism; Phospholipid Assays

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/phospholipid/44664>