

Phospholipase A2 Activity Assay Kit (Fluorometric)

Cat. No. Kit-1082 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Description

Phospholipase(s) A2 (PLA2s, EC 3.1.1.4) are a family of enzymes that catalyze the hydrolysis an acyl ester bond in the sn-2 position of a glycerophospholipid to release a lysophospholipid and a free fatty acid. Members of the PLA2 superfamily can be divided into three major subtypes based upon their size and cation dependence. Two of the subtypes, the low molecular weight secretory phospholipase A2 enzymes (sPLA2) and the high molecular weight cytosolic enzymes (cPLA2), are characterized by their requirement of Ca²⁺ for catalytic activity. The 14 kDa sPLA2 enzymes are known to play an important role in the digestion of dietary phospholipids, host defense against bacterial infections as well as production of eicosanoids. The 85 kDa cPLA2 enzymes play an important role in inflammatory disorders by releasing arachidonic acid from membrane phospholipids for production of various eicosanoids. The third subtype, the high molecular weight calcium-independent phospholipases A2 (iPLA2), are intracellular forms of the enzyme that have been recently implicated in functions such as phospholipid remodeling, cell proliferation and fat catabolism. Phospholipase A2 Activity Assay Kit provides a quick, sensitive and simple way for measuring PLA2 activity in various biological samples. In this assay, active PLA2 cleaves a synthetic thiophospholipid, producing a lysothiophospholipid which reacts with a fluorogenic probe to produce a highly fluorescent product detectable in the visible range (Ex/Em= 388/513 nm). The assay is simple to perform, high-throughput adaptable and can detect less than 0.1 mU of PLA2 activity

Applications

Measurement of PLA2 activity in various tissues/cells;
Analyzing intracellular signaling;

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Screening of PLA2inhibitors	
Storage	-20°C
Shipping	Gel Pack
Size	100 assays
Kit Components	PLA2 Assay Buffer; PLA2 Substrate; PLA2 Probe; Fluorescent Standard; Bee Venom Positive Control; PLD Positive Control (Lyophilized)
Target Species	Mammalian
Detection method	Fluorescence (388/513 nm)
Features & Benefits	Simple, rapid & convenient; The assay can detect total phospholipase A2 (cytosolic and secretory). Activity less than 0.5 mUin various sample types.

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