

Lipoxygenase Activity Assay Kit (Fluorometric)

Cat. No. Kit-1061 Lot. No. (See product label)

SPECIFICATION

Product Overview

Description

Lipoxygenases are non heme iron - containing dioxygenases. These enzymes convert unsaturated fatty acids to epoxides; for example the synthesis of leukotrienes from arachidonic acid. They play an important role in cell proliferation, differentiation and inflammation; and have been implicated in inflammation and hyper proliferation mediated diseases like asthma, rheumatoid arthritis and cancer. In Lipoxygenase (LOX) activity assay, lipoxygenase converts the LOX substrate to an intermediate that reacts with the probe generating a fluorescent product. The increase in fluorescent signal can be recorded at Ex/Em 500/536 nm and is directly proportional to LOX activity. The kit includes 5-lipoxygenase enzyme (LOX Enzyme) as a positive control. A lipoxygenase inhibitor that completely inhibits lipoxygenase activity is also included in order to calculate the specific activity of LOX in biological samples. The kit can detect as low as 0.004 mU/mg protein.

Applications

Measurement of LOX activity in various tissues/cell extracts, biological fluids, and purified proteins
Determination of LOX activity associated with pathological conditions
Characterization of activity of purified LOX enzymes.

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

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Kit Components	LOX Assay Buffer; Oxidized Probe Standard (100 μ M); LOX Probe; LOX Substrate; LOX Inhibitor; LOX Enzyme
Target Species	Mammalian
Detection method	Fluorescence (Ex/Em 500/536 nm)
Features & Benefits	Simple procedure; takes only ~40 min; Fast and convenient

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