CREATIVE BIOMART®
Assay Kit

Cyclooxygenase (COX) Activity Fluorometric Assay Kit

Product Information

Cat

Kit-0255

Common Name

COX

Cat.No.

Kit-0255

Product Overview

Simple, rapid & convenient assay to measure both COX-1 and COX-2 activity
High-throughput adaptable
Includes COX-1 inhibitor, SC560 & COX-2 Inhibitor, Celecoxib

Description

Cyclooxygenase (COX), also known as prostaglandin-endoperoxide synthase (PTGS, EC 1.14.99.1), is an enzyme that is responsible for the formation of important biological mediators called prostanoids, including prostaglandins, prostacyclin and thromboxane. COX is the central enzyme in the biosynthetic pathway to prostanoids from arachidonic acid. There are two known isoenzymes: COX-1 and COX-2. COX-1 is constitutively expressed in many tissues and is the predominant form in gastric mucosa and in kidney. COX-2 is not expressed under normal conditions in most cells, but elevated levels are observed during inflammation. Pharmacological inhibition of COX by non-steroidal anti-inflammatory drugs (NSAID) can provide relief from the symptoms of inflammation and pain. COX Activity Assay Kit provides a simple, sensitive, and high-throughput adaptable method to detect the peroxidase activity of COX in biological samples or purified/crude enzyme preparations. The kit includes COX-1 and COX-2 specific inhibitors to differentiate the activity of COX-1 and COX-2 as well as other peroxidases, which may be present in the sample. Detection limit: 6 μU/mg.

Applications

Measurement of COX activity in various biological samples and purified/crude enzyme preparations

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Usage

For Research Use Only! Not For Use in Humans.

Storage

-20°C

Size

100 assays

Kit Components

- COX Assay Buffer
- COX Probe (in DMSO)
- COX Cofactor (in DMSO)
- Arachidonic Acid
- NaOH
- COX-1 Positive Control
- Resorufin Standard (5 mM, in DMSO)
- SC560 (COX-1 inhibitor in DMSO)
- Celecoxib (COX-2 inhibitor in DMSO)

Detection method Fluorescence (Ex/Em 535/587 nm)

Compatible Sample Types

- Adherent and suspension cells
- Animal tissues such as rat liver
- Purified enzyme

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