CREATIVE BIOMART®
Assay Kit

COX Activity Assay Kit

Product Information

Cat.No. Kit-0252

Product Overview

COX Activity Assay Kit measures the peroxidase activity of COX. The peroxidase activity is assayed colorimetrically by monitoring the appearance of oxidized N,N,N",N"-tetramethyl-p-phenylenediamine (TMPD) at 590 nm. It can be used with both crude (cell lysates/tissue homogenates) and purified enzyme preparations. The kit includes isozymespecific inhibitors for distinguishing COX-2 activity from COX-1 activity.

Description

Cyclooxygenase (COX, also called prostaglandin H Synthase or PGHS) is a bifunctional enzyme exhibiting both cyclooxygenase and peroxidase activities. The cyclooxygenase component converts arachidonic acid to a hydroperoxy endoperoxide (Prostaglandin G2; PGG2), and the peroxidase component reduces the endoperoxide to the corresponding alcohol (prostaglandin H2; PGH2), the precursor of prostaglandins, thromboxanes, and prostacyclins. It is now well established that there are two distinct isoforms of cyclooxygenase. COX-1 is constitutively expressed in a variety of cell types and is involved in normal cellular homeostasis. A variety of mitogenic stimuli such as phorbol esters, lipopolysaccharides, and cytokines lead to the induced expression of a second isoform of COX, COX-2. COX-2 is responsible for the biosynthesis of prostaglandins under acute inflammatory conditions. This inducible COX-2 is believed to be the target enzyme for the anti-inflammatory activity of nonsteroidal anti-inflammatory drugs.

Usage

Please read these instructions carefully before beginning this assay.For research use only. Not for human or diagnostic use.

Storage

Stability: 1 year;Storage: -80°C;This kit will perform as specified if stored as directed and used before the expiration date indicated on the outside of the box.

Kit Components

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

CREATIVE BIOMART®
Assay Kit

COX Activity Assay Kit

Kit components may be stored at -80°C prior to use. After opening kit, we recommend each kit component be stored according to the temperature listed below.Assay Buffer (10X): 1 vial, -20°C;Heme: 1 vial, -80°C;COX Standard: 1 vial, -80°C;Arachidonic Acid (substrate): 1 vial -20°C;Potassium Hydroxide: 1 vial, -20°C;Colorimetric Substrate: 1 vial, -20°C;DuP-697 Assay Reagent: 1 vial, -20°C;SC-560 Assay Reagent: 1 vial, -20°C;96-Well Plate: 1 plate, Room temperature;96-Well Cover Sheet: 1 cover, Room temperature

Tel: 1-631-559-9269 1-516-512-3133

Email:info@creative-biomart.org

Fax:1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA