

Cyclooxygenase (COX) Activity Assay Kit (Fluorometric) ab204699

[8 References](#) [4 Images](#)

Overview

Product name	Cyclooxygenase (COX) Activity Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Tissue, Adherent cells, Suspension cells
Assay type	Enzyme activity
Assay time	0h 45m
Species reactivity	Reacts with: Mammals, Other species
Product overview	<p>Cyclooxygenase COX Activity Assay Kit (Fluorometric) (ab204699) 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.</p> <p>Cyclooxygenase assay protocol summary:</p> <ul style="list-style-type: none">- add samples and standards to wells- add reaction mix- add arachidonic acid/NaOH solution- analyze with microplate reader every 15 s for 30 min
Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K549 Cyclooxygenase (COX) Activity Assay Kit (Fluorometric). K549-100 is the same size as the 100 test size of ab204699.</p> <p>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 nonsteroidal anti-inflammatory drugs (NSAID) can provide relief from the symptoms of inflammation and pain.</p>
Platform	Microplate reader

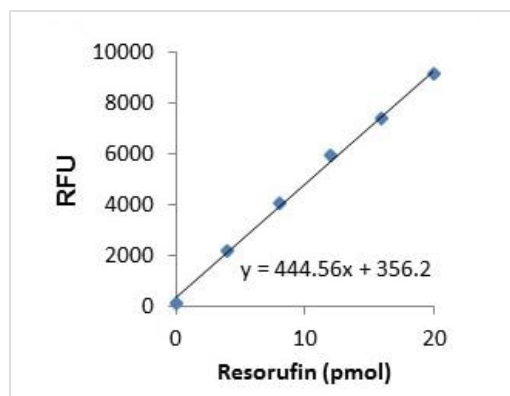
Properties

Storage instructions

Store at -20°C. Please refer to protocols.

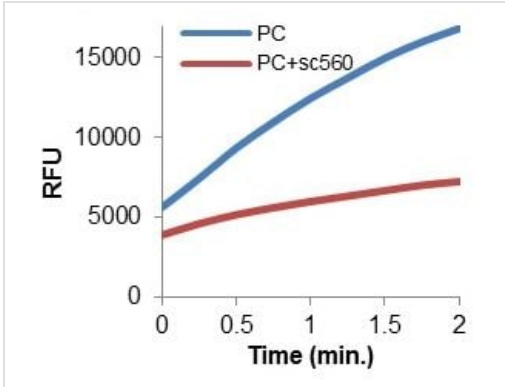
Components	100 tests
Arachidonic Acid	1 vial
Celecoxib (COX-2 inhibitor in DMSO)	1 x 100µl
COX Assay Buffer	1 x 25ml
COX Cofactor (in DMSO)	1 x 20µl
COX Probe (in DMSO)	1 x 200µl
COX-1 Positive Control	1 vial
NaOH	1 x 500µl
Resorufin Standard (5 mM, in DMSO)	1 x 50µl
SC560 (COX-1 inhibitor in DMSO)	1 x 100µl

Images



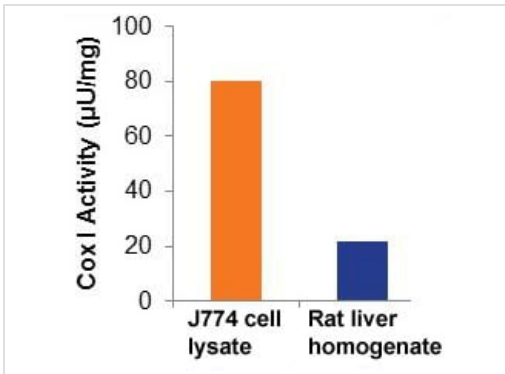
Typical Resorufin Standard calibration curve.

Cyclooxygenase (COX) Activity Assay Kit
(Fluorometric) (ab204699).



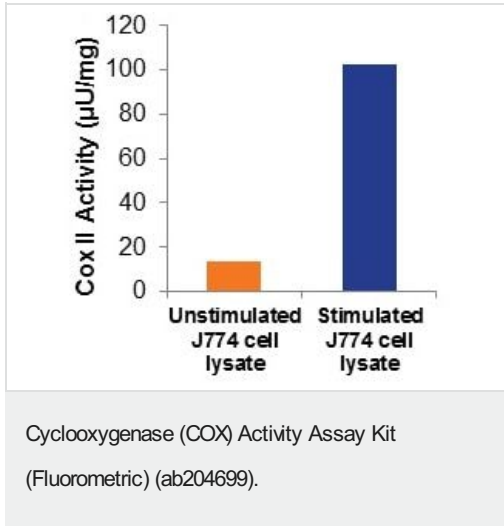
Measurement of COX-1 activity in absence (blue line) and presence of COX-1 inhibitor (SC560, red line) using the COS-1 positive control (PC) provided in the kit.

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Detection of endogenous COX-1 activity in J774 cell lysate (6 µg) and rat liver homogenate (210 µg).

Cyclooxygenase (COX) Activity Assay Kit
(Fluorometric) (ab204699).



Detection of endogenous COX-2 activity in J774 cell lysate (7 µg) stimulated with or without 100 ng/ml LPS and 100 ng/ml murine IFN-gamma.

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