abcam

Product datasheet

12(S)-HETE ELISA Kit ab133034

1 References 1 Image

Overview

Product name 12(S)-HETE ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Buffer	16	342pg/ml		= 5.2%
Buffer	16	1153pg/ml		= 10.1%
Buffer	16	4762pg/ml		= 15.5%

Inter-assay

Sample	n	Mean	SD	CV%
Buffer		224pg/ml		= 4.1%
Buffer		1127pg/ml		= 9.1%
Buffer		5294pg/ml		= 20.8%

Sample type Cell culture supernatant, Plasma

Assay type Competitive

Sensitivity = 146.3 pg/ml

Range 195 pg/ml - 50000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture media	= 94	% - %
Hep Plasma	= 104	% - %
EDTA Plasma	= 97	% - %

Assay duration

Multiple steps standard assay

Product overview

Abcam's 12(S)-HETE *in vitro* competitive ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of 12(S)-HETE in cell culture supernatants and plasma (heparin, EDTA).

A goat anti-rabbit IgG antibody has been precoated onto 96-well plates. Standards or test samples are added to the wells, along with an alkaline phosphatase (AP) conjugated-12(S)-HETE antigen and a polyclonal rabbit antibody specific to 12(S)-HETE. After incubation the excess reagents are washed away. pNpp substrate is added and after a short incubation the alkaline phosphatase enzyme reaction is stopped and the yellow color generated is read at 405 nm. The intensity of the yellow coloration is inversely proportional to the amount of 12(S)-HETE captured in the plate.

Notes

12(S)-HETE is the stereo specific hydroxy product from the reduction of 12(S)-hydroperoxy tetraenoic eicosatetraenoic acid [12(S)-HpETE], which itself is a 12-lipoxygenase metabolite of arachidonic acid. 12(S)-HETE has been shown to be chemotactic and chemokinetic for polymorphonuclear leukocytes and vascular smooth cells. It also acts as a second messenger in angiotensin-II induced aldosterone production. Evidence also suggests that 12(S)-HETE is involved in suppressing renin production, stimulating insulin secretion by pancreatic tissue, inducing endothelial cell retraction and tumor cell adhesion.

Cross Reactivity

Compound	% Cross Reactivity
12(S)-HETE	100
12(R)-HETE	2.5
15-HETE	0.3
5(S)-HETE	0.2
8,15-diHETE	0.1
5,15-diHETE	0.1
PGE_2	0.1
$PGF_{2\alpha}$	0.1
PGD_2	0.1
6-keto-$PGF_{1\alpha}$	0.1
Thromboxane B_2	0.1
Arachidonic Acid	0.1
Leukotriene B_4	0.1
Leukotriene C_4	0.1
Leukotriene D_4	0.1
Leukotriene E_4	0.1
8-HETE	<0.1
9-HETE	<0.1
11-HETE	<0.1

Platform

Microplate

Properties

Storage instructions

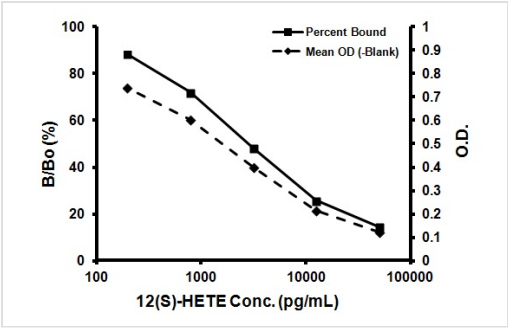
Please refer to protocols.

Components	1 x 96 tests
12(S)-HETE Antibody	1 x 5ml
12(S)-HETE Conjugate	1 x 5ml
12(S)-HETE Standard	1 x 0.5ml
20X Wash Buffer Concentrate	1 x 27ml
Assay Buffer	1 x 27ml
Goat anti-rabbit IgG Microplate (12 x 8 wells)	1 unit
Plate Sealer	2 units
pNpp Substrate	1 x 20ml
Stop Solution	1 x 5ml

Relevance

12(S)-HETE is the stereo specific hydroxy product from the reduction of 12(S)-hydroperoxy tetraenoic eicosatetraenoic acid [12(S)-HpETE], which itself is a 12-lipoxygenase metabolite of arachidonic acid. 12(S)-HETE has been shown to be chemotactic and chemokinetic for polymorphonuclear leukocytes and vascular smooth cells. It also acts as a second messenger in angiotensin-II induced aldosterone production. Evidence also suggests that 12(S)-HETE is involved in suppressing renin production, stimulating insulin secretion by pancreatic tissue, inducing endothelial cell retraction and tumor cell adhesion.

Images



Typical Standard Curve

Representative Standard Curve using ab133034

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