

Human 5-hydroxyeicosatetraenoic acid (5-HETE) ELISA Kit



Catalog No: #EK7579

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Package Size: #EK7579-1 48T #EK7579-2 96T

Description

Product Name	Human 5-hydroxyeicosatetraenoic acid (5-HETE) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Storage	<p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p>

Application Details

Detect Range:31.25-2000 pg/mL

Sensitivity:7.81 pg/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate 5-HETE in samples. An antibody specific for 5-HETE has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any5-HETE present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for 5-HETE is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of 5-HETE bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**5-Hydroxyeicosatetraenoic acid (5-HETE) is an endogenous eicosanoid. 5-HETE is an intermediate in the pathway of leukotriene synthesis. In addition, it is a modulator of tubuloglomerular feedback.

5-Hydroxyeicosatetraenoic acid is a key intermediate of the arachidonate-dependent protective signaling in monocytes/macrophages exposed to peroxynitrite. Peroxynitrite elicited the nuclear membrane translocation of 5-LO and enhanced its enzymatic activity via a mechanism sensitive to low concentrations of inhibitors of 5-LO or the 5-LO-activating protein, as well as to genetic depletion of the latter enzyme. Inhibition of 5-LO activity was invariably associated with the cytosolic localization of PKC, the mitochondrial accumulation of Bad, and a rapid MPT-dependent necrosis. All these events were prevented by nanomolar concentrations of the 5-LO product 5-hydroxyeicosatetraenoic acid.

Note: This product is for in vitro research use only