

Human Leukotriene A₄ (LTA₄) ELISA Kit

Catalog No: #EK12278



Package Size: #EK12278-1 48T #EK12278-2 96T

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Description

Product Name	Human Leukotriene A ₄ (LTA ₄) 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: 123.5-10000 pg/mL

Sensitivity: 46.3 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: Sandwich Test principle: This assay employs a two-site sandwich ELISA to quantitate LTA₄ in samples. An antibody specific for LTA₄ has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any LTA₄ present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for LTA₄ 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 LTA₄ bound in the initial step. The color development is stopped and the intensity of the color is measured.

Product Overview: Leukotriene A₄ is a leukotriene. Leukotriene A₄ hydrolase converts it to Leukotriene B₄. (2S-(2α,3β-(1E,3E,5Z,8Z)))-(1,3,5,8-tetradecatetraenyl)oxiranebutanoic acid. An unstable allylic epoxide, formed from the immediate precursor 5-hpETE via the stereospecific removal of a proton at C-10 and dehydration. Leukotriene A₄ (LTA₄) is synthesized in mast cells, eosinophils, and neutrophils from arachidonic acid by 5-lipoxygenase (5-LO), which exhibits both lipoxygenase and LTA₄ synthase activities. 1,2?LTA₄?is rapidly metabolized by LTA₄hydrolase or LTC₄?synthase to LTB₄?or LTC₄, respectively. 2?LTA₄, from leukocytes, is known to undergo transcellular metabolism in platelets, erythrocytes, and endothelial cells. 3?Further metabolism of LTA₄?by 15-LO leads to lipoxin biosynthesis. 2?LTA₄?as a free acid is highly unstable. The methyl ester is stable and can be readily hydrolyzed to the free acid as needed.

Note: This product is for in vitro research use only