

Certificate of Analysis

Print Date: May 28th 2024

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Product Name: Leukotriene B₄ Catalog No.: 2307 Batch No.: 17

CAS Number: 71160-24-2

IUPAC Name: (5S,6Z,8E,10E,12R,14Z)-5,12-Dihydroxy-6,8,10,14-eicosatetraenoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{32}O_4$ Batch Molecular Weight:336.47Physical Appearance:liquid

Solubility: Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 50µg/ml)

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 95.6% purity

Mass Spectrum: Consistent with structure



Product Information

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Description:

Leukotriene B_4 is a potent lipid inflammatory mediator derived from the 5-lipoxygenase pathway of arachidonic acid metabolism. Binds to BLT_1 and BLT_2 receptors and acts as a potent chemotactic agent and activator of leukocytes. Also displays antiviral activity towards DNA viruses and retroviruses.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₀H₃₂O₄ Batch Molecular Weight: 336.47 Physical Appearance: liquid

Minimum Purity: ≥95%

Batch Molecular Structure:

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 50µg/ml)

CAUTION - This product is supplied dissolved in anhydrous ethanol at a concentration of 50ug/ml. Aqueous solutions should be stored on ice and used within 12 hours of preparation.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Yokomitso et al (2001) Leukotriene B₄: metabolism and signal transduction. Arch.Biochem.Biophys. 385 231. PMID: 11368003.

Ford-Hutchinson (1990) Leukotriene B4 in inflammation. Crit.Rev.Immunol. 10 1. PMID: 2155000.

Bray et al (1981) Leukotriene B4: an inflammatory mediator in vivo. Prostaglandins 22 213. PMID: 6270742.