Recombinant Human LTC4S/LTC4 synthase Protein (His Tag)

Catalog Number: PKSH031060

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

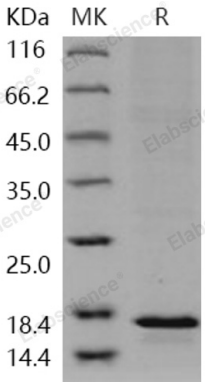
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human LTC4S/LTC4 synthase protein Met 1-Ala 150, with an C-terminal His
Calculated MW	17 kDa
Observed MW	17 kDa
Accession	NP_665874.1
Bio-activity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Hepes, 0.1% Triton 0.5% DOC, 10% glycerol, pH 8.0 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Leukotriene C4 synthase, also known as LTC4 synthase, Leukotriene-C(4) synthase, and LTC4S, is a multi-pass membrane protein which belongs to theMAPEG family. LTC4S is detected in lung, platelets and the myelogenous leukemia cell line KG-1 (at protein level). LTC4S activity is present in eosinophils, basophils, mast cells, certain phagocytic mononuclear cells, endothelial cells, vascular smooth muscle cells and platelets. LTC4S is essential for the production of cysteinyl leukotrienes (Cys-LT), critical mediators in asthma. Mutagenic analysis of the conjugation function of human LTC4S has identified R51 and Y93 as critical for acid and base catalysis of LTA4 and reduced glutathione, respectively. A comparison across species for proteins that possess LTC4S activity reveals conservation of both of these residues, whereas R51 is absent in the FLAP molecules. Thus, within the glutathione S-transferase superfamily of genes, alignment of specific residues allows the separation of LTC4S family members from their most structurally similar counterparts, the FLAP molecules. Defects in LTC4S are the cause of leukotriene C4 synthase deficiency (LTC4 synthase deficiency). LTC4 synthase deficiency is a fatal neurometabolic developmental disorder. It is associated with muscular hypotonia, psychomotor retardation, failure to thrive, and microcephaly.

Toll-free: 1-888-852-8623
Tel: 1-832-243-6086
Fax: 1-832-243-6017
Web:www.elabscience.com
Email:techsupport@elabscience.com