Recombinant Human LTC4S / LTC4 synthase Protein (His tag)

Cat.NO.: TP06430

3th Edition

Synonyms:LTC4S;MGC33147

Description: Leukotriene C4 synthase, also known as LTC4 synthase, Leukotriene-C(4) synthase, and LTC4S, is a multi-pass membrane protein which belongs to the MAPEG 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.

Form:PBS

Molecular Weight:17 kDa

Sequences: Met 1-Ala 150

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.