

Recombinant Human Arachidonate 5-lipoxygenase 1

Cat. No. ALOX5-723H **Lot. No.** (See product label)

SPECIFICATION

Species	Human
Source	<i>S.frugiperda</i>
Description	Recombinant human 5-Lipoxygenase expressed in <i>S. frugiperda</i> insect cells using a baculovirus overexpression system. It is localized in the cytosol of resting neutrophils, and is found in the nucleus in rat basophilic leukemia cells and human alveolar macrophages. Upon stimulation of the cell, 5-LO translocates to the nuclear membrane where it is found in association with 5-LO activating protein (FLAP) and with the 85 kDa cPLA2.
Molar Mass	78000.
Specific Activity	~20 units/mg.
Unit Definition	One unit is defined as the amount of enzyme that consumes 1.0 nmol of oxygen per min at 25°C in 50 mM Tris-HCl, 100 μ M arachidonate, 2 mM CaCl ₂ , 1 mM ATP, 250 μ M oxygen. Oxygen consumption can be measured using a oxygraph equipped with a Clark oxygen electrode.
Form	Liquid In 100 mM Tris containing 5 mM EGTA, pH 8.0.
Toxicity	Standard Handling (MSDS available upon request).
Storage	\leq -70°C. Avoid freeze/thaw Following initial thaw, aliquot and freeze (-70°C).

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GENE INFORMATION

Gene Name	ALOX5 arachidonate 5-lipoxygenase [Homo sapiens]
Synonyms	arachidonate 5-lipoxygenase; ALOX5; 5-LO; 5LPG; LOG5; 5-LOX; MGC163204; leukotriene A4 synthase; arachidonic acid 5-lipoxygenase
Gene ID	240
mRNA Refseq	NM_000698
Protein Refseq	NP_000689
MIM	152390
UniProt ID	P09917
Chromosome Location	8p12
Pathway	Arachidonic acid metabolism; Metabolic pathways
Function	arachidonate 5-lipoxygenase activity; iron ion binding; lipoxygenase activity; metal ion binding; oxidoreductase activity; protein binding

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