

PRODUCT INFORMATION



12-Lipoxygenase (platelet-type, mouse recombinant)

Item No. 10341

Overview and Properties

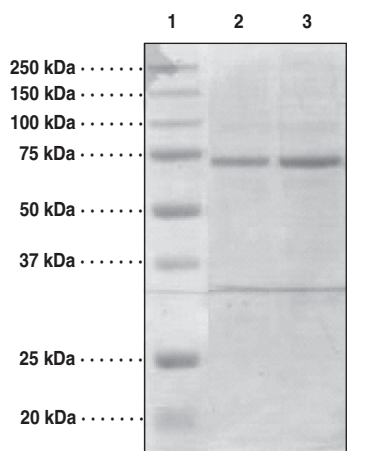
Synonyms: Arachidonate 12-Lipoxygenase, 12-LO, 12-LOX
Source: Active recombinant mouse C-terminal His-tagged protein expressed in insect cells
Uniprot No.: P39655
Molecular Weight: 76 kDa
Storage: -80°C (as supplied); avoid freeze/thaw cycles by aliquoting the protein
Stability: ≥1 year
Purity: *batch specific* (≥80% estimated by SDS-PAGE)
Supplied in: 50 mM sodium phosphate pH 7.2, with 100 mM sodium chloride, 20 μM FeCl₂, and 30% glycerol

Protein

Concentration: *batch specific* mg/ml
Activity: *batch specific* U/ml
Specific Activity: *batch specific* U/mg
Unit Definition: One unit is defined as the amount of enzyme required to consume 1 nmol of oxygen per minute at 37°C in 0.1 M Tris-HCl, pH 7.5, containing 5 mM EDTA, 0.03% polysorbate, and 100 μM arachidonate.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: Purified 12-LO (2 μg)
Lane 3: Purified 12-LO (5 μg)

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/28/2019

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

12-Lipoxygenase (12-LO) catalyzes the formation of 12-HpETE from arachidonic acid.¹ There are two main types of 12-LO, platelet-type and leukocyte-type, which share only 60% identity at the amino acid level and strongly differ in substrate specificity and enzyme kinetics.² Leukocyte-type 12-LO has the ability to also produce 15-HpETE, however, platelet-type predominately forms 12-HpETE.² Epidermal-type 12(S)- and 12(R)-LO enzymes have also been characterized, which catalyze the synthesis of their respective stereospecific 12-HETE products.^{2,3}

References

1. Chen, X.-S., Kurre, U., Jenkins, N.A., *et al.* cDNA cloning, expression, mutagenesis of C-terminal isoleucine, genomic structure, and chromosomal localizations of murine 12-lipoxygenases. *J. Biol. Chem.* **269**, 13979-13987 (1994).
2. McDonnell, M., Davis, W., Jr., Li, H., *et al.* Characterization of the murine epidermal 12/15-lipoxygenase. *Prostaglandins Other Lipid Mediat.* **63**, 93-107 (2001).
3. McDonnell, M., Li, H., and Funk, C.D. Characterization of epidermal 12(S) and 12(R) lipoxygenase. *Eicosanoids & Other Bioactive Lipids in Cancer, Inflammation & Radiation Injury* **5**, 147-153 (2002).

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM