



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# PRODUCT INFORMATION



## 15-Lipoxygenase-2 (human, recombinant)

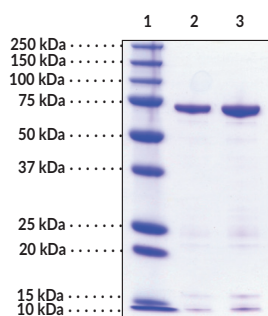
Item No. 10011263

### Overview and Properties

**Synonyms:** 15-LO-2, 15-LOX-2  
**Source:** Active recombinant human C-terminal His-tagged protein expressed in *E. coli*  
**Uniprot No.:** O15296  
**Molecular Weight:** 76 kDa  
**Storage:** -80°C (as supplied); Avoid freeze/thaw cycles by aliquoting the protein and storing at -80°C  
**Stability:** ≥1 year  
**Purity:** ≥85% estimated by SDS-PAGE  
**Supplied in:** PBS, pH 7.5, with 1 mM DTT, 20% 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 produce 1 nmol of 15-HpETE per min at 30°C in 50 mM Tris-HCl, pH 7.2, with 0.003% Polysorbate 20, and 250 μM arachidonic acid.

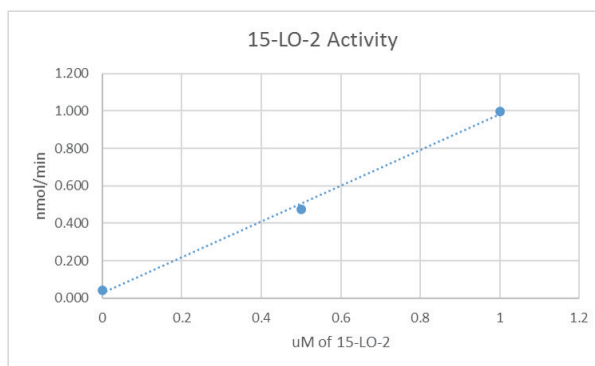
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Images



Lane 1: MW Markers  
Lane 2: 15-LO-2 (human, recombinant) (1 μg)  
Lane 3: 15-LO-2 (human, recombinant) (2 μg)

Representative gel image shown; actual purity may vary between each batch.



15-LO-2 activity was determined using 50 μM arachidonic acid and was inhibited using 100 μM nordihydroguaiaretic acid (NDGA; Item No. 70300), a non-selective lipoxygenase inhibitor.

**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, 02/26/2021

**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

---

Two types of 15-lipoxygenase (15-LO) have been discovered and characterized, both of which metabolize arachidonic acid (AA) to produce 15(S)-hydroxy eicosatetraenoic acid (15(S)-HETE). 15-LO-1 oxygenates AA at both C-15 and C-12, whereas 15-LO-2 exclusively oxygenates C-15 of AA.<sup>1,2</sup> Human 15-LO-2 has a molecular mass of approximately 76 kDa and exhibits approximately 40% identity to the reticulocyte 15-LO-1.<sup>2,3</sup> Expression of 15-LO-2 appears to be restricted to prostate, lung, skin, and cornea and may play a role in the normal development of these tissues.<sup>4</sup> The protein levels and enzymatic activity of 15-LO-2 are both down-regulated in prostate cancer compared with normal and benign prostate tissues, implicating a possible protective role for 15-LO-2 against tumor formation.<sup>4-6</sup> Cayman's 15-LO-2 (human, recombinant) is expressed and purified from *E. coli*. The purity was determined using gel electrophoresis followed by coomassie staining. 15-LO-2 specific activity was established using arachidonic acid as the substrate and monitoring diene formation by measuring absorbance 236 nm.

## References

---

1. Kuhn, H., Barnett, J., Grunberger, D., *et al.* *Biophys. Acta* **1169**(1), 80-89 (1993).
2. Brash, A.R., Chang, M.S., and Boeglin, W.E. *Proc. Natl. Acad. Sci. USA* **94**, 6148-6152 (1997).
3. Kilty, I., Logan, A., and Vickers, P.J. *Eur. J. Biochem.* **266**, 83-93 (1999).
4. Tang, S., Bhatia, B., Maldonado, C.J., *et al.* *J. Biol. Chem.* **277**(18), 16189-16201 (2002).
5. Shappell, S.B., Boeglin, W.E., Olson, S.J., *et al.* *Am. J. Pathol.* **155**, 235-245 (1999).
6. Jack, G.S., Brash, A.R., Olson, S.J., *et al.* *Human Pathology* **31**(9), 1146-1154 (2000).

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