

# Product Information

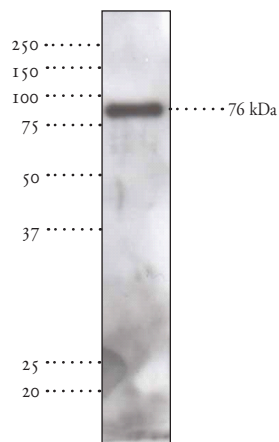


## 15-Lipoxygenase-1 Western Ready Control

Item No. 10011677

<b>Synonyms:</b>	15-LO-1, 15-LOX-1
<b>Source:</b>	Human recombinant protein expressed in <i>E. coli</i>
<b>M<sub>r</sub>:</b>	76 kDa
<b>Specificity:</b>	Single band on a western blot when probed with Cayman's 15-Lipoxygenase-1 Polyclonal Antiserum (Catalog No. 160704)
<b>Stability:</b>	≥2 years at -20°C.
<b>Supplied in:</b>	Laemmli buffer (2% SDS, 10% glycerol, 62.5 mM Tris-HCl, pH 6.8, containing 5% 2-mercaptoethanol, bromophenol blue)
<b>Application:</b>	Positive control in western blotting

15-Lipoxygenase-1 (15-LO-1) catalyzes the formation of 15(S)-HETE and 13(S)-HODE from arachidonic acid and linoleic acid, respectively.<sup>1,2</sup> 15-LO-1 is a monomer with a molecular mass of approximately 75 kDa and is found primarily in reticulocytes and eosinophils.<sup>2-4</sup> Interleukin-4 and -13 induce the expression of 15-LO-1 mRNA in human monocytes.<sup>5,6</sup> The induction of 15-LO-1 by both agents is inhibited by IFN $\gamma$ .<sup>5,6</sup> A second 15-LO, 15-LO-2, cloned from human hair roots, has been identified.<sup>7</sup> 15-LO-1 is expressed in prostate, lung, and cornea and exhibits approximately 40% identity to the 15-LO-2.



Western blot of human recombinant 15-LO-1 probed with Cayman's 15-LO-1 Polyclonal Antiserum (Catalog No. 160704).

### Laboratory Procedures

Western Ready Controls are designed to serve as positive controls on western blots. This 15-LO-1 Western Ready Control is supplied pre-boiled in 55  $\mu$ l of Laemmli buffer. To use, thaw and load 10  $\mu$ l of 15-LO-1 Western Ready Control per well and follow a standard western blotting protocol. The amount needed per well will depend on the antibody and detection system used.

### References

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2. Sigal, E., Craik, C.S., Highland, E., *et al.* *Biochem. Biophys. Res. Commun.* **157**, 457-464 (1988).
3. Fleming, I., Thiel, B.A., Chester, J., *et al.* *Gene* **79**, 181-188 (1989).
4. Sigal, E., Grunberger, D., Craik, C.S., *et al.* *J. Biol. Chem.* **263**, 5328-5332 (1988).
5. Conrad, D.J., Kuhn, H., Mulkins, M., *et al.* *Proc. Natl. Acad. Sci. USA* **89**, 217-221 (1992).
6. Nassar, G.M., Morrow, J.D., *J. Biol. Chem.* **269**, 27631-27634 (1994).
7. Brash, A.R., Chang, M.S., and Boeglin, W.E. *Proc. Natl. Acad. Sci. USA* **94**, 6148-6152 (1997).

### Related Products

HC Toxin - Item No. 10576 • 15-Lipoxygenase (soybean P1) - Purified - Item No. 60700 • 15(S)-HETE - Item No. 34720 • 15(S)-HpETE - Item No. 44720 • 5-Lipoxygenase (human recombinant) - Item No. 60402 • Nordihydroguaiaretic Acid - Item No. 70300 • Arachidonic Acid - Item No. 90010 • 15-Lipoxygenase-1 (rabbit) Polyclonal Antiserum - Item No. 160704 • Lipoxygenase Inhibitor Screening Assay Kit - Item No. 760700 • 15-Lipoxygenase-2 Polyclonal Antibody - Item No. 10004454 • 5-Lipoxygenase (human recombinant) Western Ready Control - Item No. 10009638 • 15-Lipoxygenase-2 (human recombinant) - Item No. 10011263

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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