

PRODUCT INFORMATION



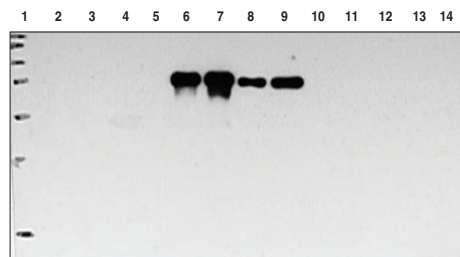
15-Lipoxygenase-2 Polyclonal Antibody

Item No. 10004454

Overview and Properties

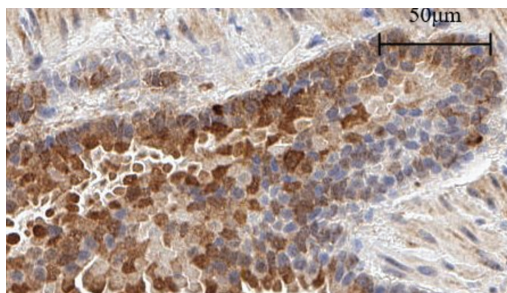
Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	ALOX15B, Arachidonate 15-lipoxygenase B, Arachidonate 15-Lipoxygenase type II, 15-LO-2, 15-LOX-2, Linoleate 13-lipoxygenase 15-Lob
Immunogen:	Synthetic peptide from the internal region of human 15-lipoxygenase-2
Cross Reactivity:	(-) Rabbit reticulocyte 15-lipoxygenase-1, porcine leukocytes 12-lipoxygenase-1, and 5-lipoxygenase (human recombinant)
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	O15296
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for IHC and WB is 1:40 and 1:200, respectively. ICC and other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Precision Plus Protein Standard
Lane 2: 15-LO1 Western Ready Control (5 µl)
Lane 3: 15-LO1 Western Ready Control (10 µl)
Lane 4: 15-LO1 Recombinant (pure) (0.01 µg)
Lane 5: 15-LO1 Recombinant (pure) (0.02 µg)
Lane 6: 15-LO2 Western Ready Control (5 µl)
Lane 7: 15-LO2 Western Ready Control (10 µl)
Lane 8: 15-LO2 Recombinant (pure) (0.01 µg)
Lane 9: 15-LO2 Recombinant (pure) (0.02 µg)
Lane 10: 5-LO Western Ready Control (1 µl)
Lane 11: 5-LO Western Ready Control (5 µl)
Lane 12: 5-LO Western Ready Control (10 µl)
Lane 13: Porcine Leukocyte lysate (10 µg)
Lane 14: Porcine Leukocyte lysate (20 µg)

Figure 1: 15-Lipoxygenase 2 Polyclonal Antibody used at 1:200 dilution detected 15-LO2 but not 15-LO1, 5-LO or any lipoxygenases present in porcine leukocytes (i.e. 12-LO).



Immunofluorescent staining of HepG2 cells with Cayman's ApoA1 Polyclonal Antibody at 4 mg/ml. The positive cytoplasm staining was visualized in green with Cayman's Goat Anti-Rabbit IgG FITC (Item No. 10006588).

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.

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Description

Two types of 15-lipoxygenase (15-LO) have been discovered and characterized, both of which metabolize arachidonic acid (AA) to produce 15(S)-hydroxyeicosatetraenoic acid (15(S)-HETE). 15-LO-1 oxygenates AA at both C15 and C12,¹ whereas 15-LO-2 exclusively oxygenates C15 of AA.² Human 15-LO-2 has a molecular mass of approximately 76 kDa and exhibits approximately 40% identity to the reticulocyte 15-LO-1.^{2,3} 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.⁴ 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.⁴⁻⁶

References

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5. Shappell, S.B., Boeglin, W.E., Olson, S.J., *et al.* 15-lipoxygenase-2 (15-LOX-2) is expressed in benign prostatic epithelium and reduced in prostate adenocarcinoma. *Am. J. Pathol.* **155**(1), 235-245 (1999).
6. Jack, G.S., Brash, A.R., Olson, S.J., *et al.* Reduced 15-lipoxygenase-2 immunostaining in prostate adenocarcinoma: Correlation with grade and expression in high-grade prostatic intraepithelial neoplasia. *Human Pathology* **31**(9), 1146-1154 (2000).

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