

PRODUCT INFORMATION



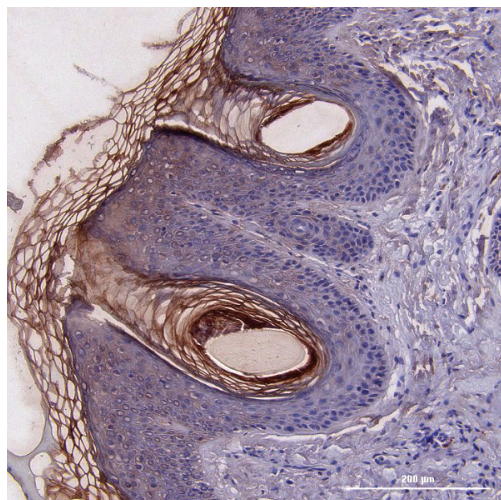
Oxidized Phospholipid Monoclonal Antibody (Clone 509)

Item No. 40508

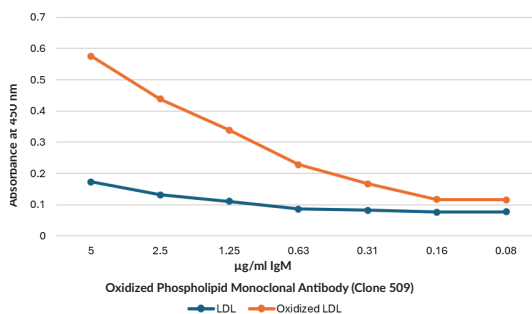
Overview and Properties

Contents:	This vial contains 100 µg of ammonium sulfate purified mouse IgM
Synonym:	OxPL
Immunogen:	Oxidized phospholipids and oxidized lipoprotein
Cross Reactivity:	(+) OxLDL, OxPE; (-) LDL
Species Reactivity:	Species Independent
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Clone:	509
Host:	Mouse
Isotype:	IgM
Applications:	ELISA, Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Immunohistochemical staining of formalin-fixed, paraffin-embedded (FFPE) human squamous cell carcinoma after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with the Oxidized Phospholipid Monoclonal Antibody (Clone 509) (Item No. 40508) at a 1:100 dilution. Slides were incubated with Goat Anti-Mouse IgG HRP (Item No. 10004302) secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).



Oxidized Phospholipid Monoclonal Antibody (Clone 509)
ELISA strips were coated with either LDL or oxidized (copper sulfate) LDL and probed with Oxidized Phospholipid Monoclonal Antibody (Clone 509) (Item No. 40508).

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

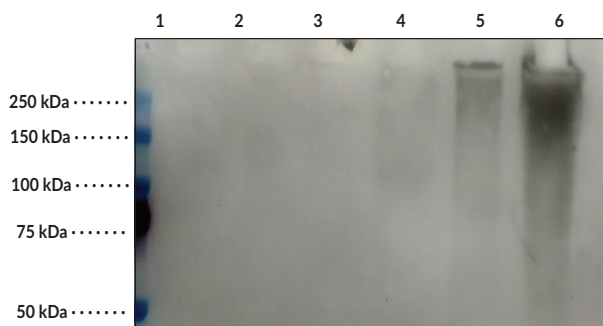
SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your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

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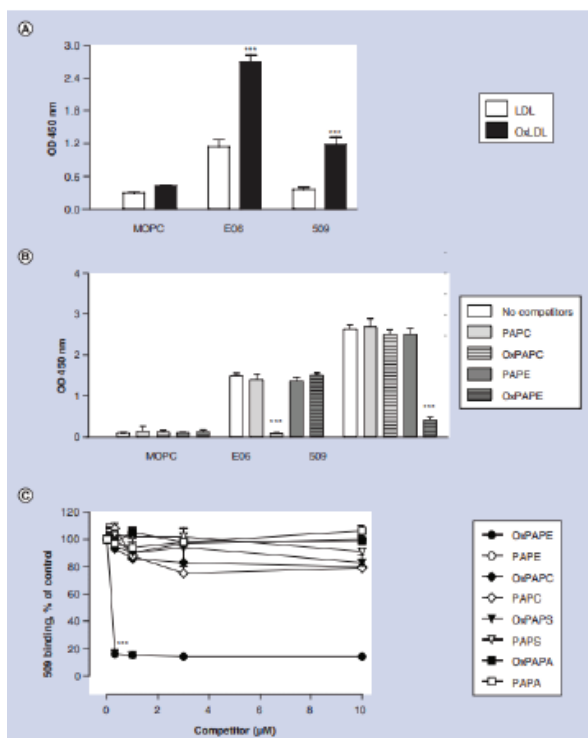
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Lane 1: LDL (10 μ g)
 Lane 2: LDL (50 μ g)
 Lane 3: Oxidized LDL (Copper Sulfate) (10 μ g)
 Lane 4: Oxidized LDL (Copper Sulfate) (50 μ g)
 Lane 5: Extensively Oxidized (Copper Sulfate) LDL (10 μ g)
 Lane 5: Extensively Oxidized (Copper Sulfate) LDL (50 μ g)

WB of Oxidized Phospholipid Monoclonal Antibody (Clone 509) under reducing conditions.



Characterization of the epitope specificity of mAb 509. (A) Sandwich ELISA: LDL or OxLDL were captured by plate-immobilized anti-apoB antibody and detected by either 509, E06 or isotype control (MOPC) antibody. (B) and (C) Pure phospholipids (65 μ M for (B) or indicated concentrations for (C)) were used as competitors for binding of anti-OxPL mABs to oxLDL. Data (as mean $\pm$ SD) were obtained from at least three independent experiments and analyzed by one-way ANOVA with Tukey's post hoc test (***) $p < 0.001$.¹

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Description

Oxidized phospholipids (OxPLs) are a class of lipid mediators involved in diverse physiological and pathological processes.² In particular, fragmented OxPLs on the surface of LDL can be formed *via* β -scission of the *sn*-2 fatty acid fragment on the glycerol backbone and are immunogenic.^{2,3} The 509 OxPL antibody clone binds to oxidized LDL (OxLDL) and selectively binds to oxidized 1-palmitoyl-2-arachidonoyl-*sn*-glycero-3-phosphoethanolamine (OxPAPE) over PAPE, oxidized 1-palmitoyl-2-arachidonoyl-*sn*-glycero-3-phosphocholine (OxPAPC), PAPC, oxidized 1-palmitoyl-2-arachidonoyl-*sn*-glycero-3-phosphoserine (OxPAPS), PAPS, oxidized 1-palmitoyl-2-arachidonoyl-*sn*-glycero-3-phosphatidic acid (OxPAPA), and PAPA.¹ Cayman's Oxidized Phospholipid Monoclonal Antibody (Clone 509) can be used for ELISA, immunohistochemistry (IHC), and Western blot (WB) applications. The original 509 antibody was generated *via* immunization of mice with OxPAPC and oxLDL with Freund's adjuvant.¹

References

1. Bochkov, V., Schoenenberger, A.W., Oskolkova, O., *et al.* Novel immune assay for quantification of plasma protective capacity against oxidized phospholipids. *Biomark. Med.* **10**(8), 797-810 (2016).
2. Bochkov, V., Gesslbauer, B., Mauerhofer, C., *et al.* Pleiotropic effects of oxidized phospholipids. *Free Radic. Biol. Med.* **111**, 6-24 (2017).
3. Hörkkö, S., Miller, E., Dudl, E., *et al.* Antiphospholipid antibodies are directed against epitopes of oxidized phospholipids. Recognition of cardiolipin by monoclonal antibodies to epitopes of oxidized low density lipoprotein. *J. Clin. Invest.* **98**(3), 815-825 (1996).

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