PRODUCT INFORMATION

Oxidized Phospholipid Mouse Monoclonal Antibody (Clone E06)

Item No. 40375

Overview and Properties

Contents:	This vial contains 200 µg of protein A-affinity purified monoclonal antibody
Synonym:	OxPL
Cross Reactivity:	(+) Oxidized phospholipid
Species Reactivity:	(+) Human, mouse, rabbit; other species not tested
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, with 0.02% ProClin™ 300
Concentration:	1 mg/ml
Clone:	E06
Host:	Chimeric monoclonal antibody
Isotype:	Mouse IgG1
Applications:	ELISA, Flow cytometry (FC), functional assays, Immunofluorescence (IF), Immunohistochemistry (IHC), Radioimmunoassay (RIA), and Western blot (WB); the optimal working concentration/dilution should be determined empirically.

Description

Oxidized phospholipids (OxPLs) are a class of lipid mediators involved in diverse physiological and pathological processes.[1] 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.[1,2] The E06 OxPL antibody clone tightly binds to copper-oxidized LDL, as well as copper-oxidized HDL, LDL modified with arachidonic acid or linoleic acid oxidation products, acrolein-LDL, and oxidized cardiolipin.[2-4] It selectively binds to oxidized 1-palmitoyl-2-arachidonoyl-*sn*-glycero-3-PC (OxPAPC) over PAPC, 1-palmitoyl-2-arachidonoyl-*sn*-glycero-3-PE (PAPE), and OxPAPE.[5] E06 has been used to detect phospholipid oxidation in atherosclerotic lesions in arteries isolated from LDL receptor-deficient rabbits.[4] Cayman's Oxidized Phospholipid Mouse Monoclonal Antibody (Clone E06) was produced recombinantly from the original E06 antibody sequence and can be used for ELISA, flow cytometry (FC), functional assays, immunofluorescence (IF), immunohistochemistry (IHC), radioimmunoassay (RIA), and Western blot (WB) applications. The original E06 antibody was generated from *ApoE*-deficient mice fed a high-fat diet, which induces aortic atherosclerosis.[4]

References

1. Bochkov, V., Gesslbauer, B., Mauerhofer, C., *et al.* Pleiotropic effects of oxidized phospholipids. *Free Radic. Biol. Med.* **111**, 6-24 (2017).
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3. Friedman, P., Hörkkö, S., Steinberg, D., *et al.* Correlation of antiphospholipid antibody recognition with the structure of synthetic oxidized phospholipids. *J. Biol. Chem.* **277(9)**, 7010-7020 (2002).
4. Palinski, W., Hörkkö, S., Miller, E., *et al.* Cloning of monoclonal autoantibodies to epitopes of oxidized lipoproteins from apolipoprotein E-deficient mice. Demonstration of epitopes of oxidized low density lipoprotein in human plasma. *J. Clin. Invest.* **98(3)**, 800-814 (1996).
5. 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).

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