DMPO monoclonal antibody (1)

Oxidative stress resulting in the formation of biological radicals has been implicated in a number of human diseases, such as cancer and aging. There is, however, a paucity of reliable methods for *in vivo* or *ex vivo* detection of radical formation. Until now the only general technique that allowed for the detection of these highly reactive species was electron spin resonance (ESR) using spin traps. One of the most popular of these spin traps is 5,5-dimethyl-1-pyrroline N-oxide (DMPO). In the ESR method, radicals are trapped by DMPO, and the DMPO spin adduct signal is measured quantitatively by an ESR spectrometer. The DMPO, mAb (1) (Prod. No. ALX-803-340) specifically reacts with DMPO-protein and DMPO-DNA adducts and therefore highly simplifies the detection of radical formation compared to the ESR method.

This antibody is covered by our Worry-Free Guarantee.

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Ordering Information

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ALX-803-340-C100	100µg

Manuals, SDS & CofA

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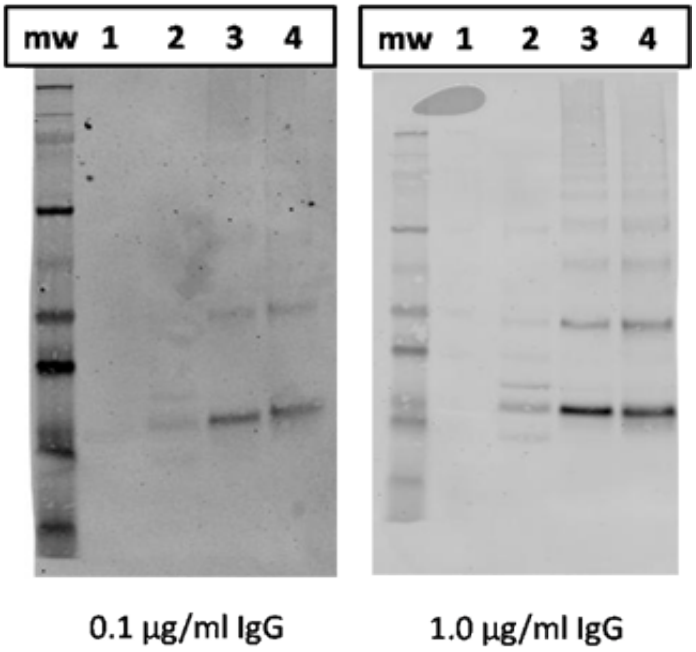


Figure: Western Blot analysis using DMPO, mAb (1) (Prod. No. ALX-803-340).
Method: Samples are 2.5 µg each from reactions containing:
1= 10 µM Mb only
2= 10 µM Mb + 100 mM DMPO
3= 10 µM Mb + 100 µM H_2O_2 + 100 mM DMPO
4= 10 µM Mb + 10 µM H_2O_2 + 10 mM DMPO
Western conditions are:
-either 0.1 or 1.0 µg/ml anti-DMPO IgG for 1 hr at rt in 1XPBS/0.5% Tween
-wash 4X in 1XPBS/0.5% Tween
-1:10,000 anti-mouse IR800 for 1 hr at rt in 1XPBS/0.5% Tween
-wash 2X in 1XPBS/0.5% Tween, wash 2X in PBS
-rinse in H_2O
-Scan on Licor Odyssey

Handling & Storage

Handling	Dilute only prior to immediate use.
Long Term Storage	+4°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	5,5-dimethyl-1-pyrroline-N-oxide
Application	ELISA, IP, WB
Clone	1
Crossreactivity	Does not cross-react with non-adducted proteins or DNA. Does not cross-react with ovalbumin.
Formulation	Liquid. In PBS, pH 7.4, containing 10% glycerol and 0.02% sodium azide.
Host	Mouse
Immunogen	DMPO-octanoic acid conjugated to ovalbumin.
Isotype	IgG
Purity Detail	Protein G-affinity purified.
Recommendation Dilutions/Conditions	Western Blot (1-10ug/ml)ELISA (1-10ug/ml)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Hybridoma tissue culture supernatant.
Species Reactivity	Species independent
Specificity	Recognizes DMPO (Prod. No. ALX-430-090), DMPO-octanoic acid, DMPO-protein adducts and DMPO-DNA adducts.

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