

PRODUCT INFORMATION



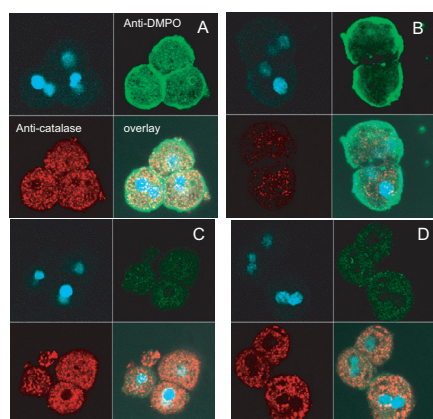
DMPO Nitron Adduct Polyclonal Antiserum

Item No. 10006170

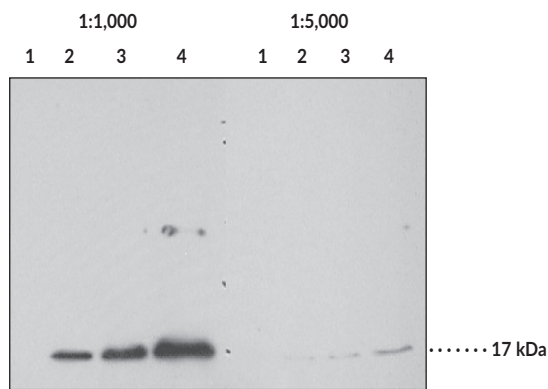
Overview and Properties

Contents:	This vial contains 100 µl of lyophilized rabbit anti-DMPO nitron adduct polyclonal antiserum
Synonym:	5,5-Dimethyl-1-Pyrroline-N-Oxide Nitron Adduct
Immunogen:	5,5-dimethyl-2-(8-octanoic acid)-1-pyrroline-N-oxide coupled to ovalbumin
Species Reactivity:	Species Independent
Form:	Lyophilized
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	Polyclonal antiserum when reconstituted in 100 µl of double distilled water
Host:	Rabbit
Applications:	ELISA, Immunocytochemistry (ICC), and Western blot (WB); the recommended starting dilution is 1:1,000-1:5,000 for ELISA and WB and 1:1,500 for ICC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Representative confocal microscopy images of the colocalization of catalase (red stain) and protein-DMPO adducts (green stain) obtained by treating mouse hepatocytes (2.5×10^6 cells/ml) with HOCl. (A) cells were treated with three pulses of HOCl (50 mM, 30-minute intervals) in the presence of DMPO; (B) same as A, hepatocytes from catalase knockout mice were used; (C) same as B, but in the absence of DMPO; (D) same as B, but in the absence of HOCl. (Courtesy of M.G. Bonini et al. FRBM 42 (2007) 530-540.)



Lane 1: Metmyoglobin (3 µl)
Lane 2: Metmyoglobin-DMPO (3 µl)
Lane 3: Metmyoglobin-DMPO (5 µl)
Lane 4: Metmyoglobin-DMPO (10 µl)

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

DMPO is a spin trap that reacts with oxygen-, nitrogen-, sulfur-, and carbon-centered radicals.¹⁻³ It also reacts with DNA base- and amino acid-derived radicals to form DNA- and protein-DMPO nitroxone adducts, respectively, which rapidly decay to form DMPO-nitronone adducts.⁴ DMPO-nitronone adducts were previously detected using electron paramagnetic resonance (EPR), however, immunochemical detection allows a higher level of sensitivity and throughput with greatly reduced sample consumption.⁴⁻⁶ Cayman's DMPO Nitronone Adduct Polyclonal Antiserum can be used for Western blot, immunocytochemistry, and ELISA applications. The antiserum recognizes various DMPO-nitronone adducts, including DNA and protein species. This material was produced using unpurified rabbit serum directed against an ovalbumin-DMPO conjugate and its use may result in off-target reactivity to similar protein epitopes as those found within the antigen.

References

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