

DMPO Nitron Adduct Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 12531 (clone N1664A)

Size: 100ug in PBS, pH 7.4, 50% glycerol, 0.09% sodium azide. Purified by Protein G affinity chromatography.

BACKGROUND

Free radicals are highly reactive and generally short-lived species. Hence, most studies of free radicals have been restricted to analysis of end products formed following their interaction with cellular biomolecules. One technology that has permitted direct study of free radicals is electron spin resonance (ESR). For very short lived radicals, spin traps have been employed to generate longer lived radicals that are more amenable to ESR analysis. The most widely used of these spin traps is 5,5-dimethyl-1-pyrroline-N-oxide (DMPO). The reaction of DMPO with a protein radical gives rise to a nitroxide radical which can be disproportionate to hydrozylamine and nitron adducts. Of these species, only the nitron adduct can be considered stable.

SPECIFICATION SUMMARY

Antigen: 5,5-dimethyl-2-(8-octanoic acid)-1-pyrroline-N-oxide conjugated to ovalbumin.

Host Species: Mouse

Antibody Class: IgG1

SPECIFICITY

This antibody recognizes DMPO, DMPO-octanoic acid, DMPO-protein adducts, and DMPO-DNA adducts. It does not cross-react with non-adducted proteins or DNA. Species independent.

APPLICATIONS

Immunoblotting: use at 1-0ug/ml. A band of ~90kDa is detected.

ELISA: use at 1-10ug/ml

Immunocytochemistry: use at 10ug/ml.

Positive control: DMPO nitron adducts of metmyoglobin.

These are recommended concentrations; enduser should determine optimal concentrations for their applications.

DILUTION INSTRUCTIONS

Dilute in PBS or medium which is identical to that used in the assay system.

STORAGE AND STABILITY

This antibody is stable for at least one (1) year at -20°C.

For in vitro investigational use only. Not intended for diagnostic or therapeutic applications.