PRODUCT INFORMATION

Nitrotyrosine Monoclonal Antibody
Item No. 189542

Overview and Properties

Contents: This vial contains 50 µg or 200 µg of protein G-purified antibody.
Synonym: NT
Immunogen: Peroxynitrite-treated KLH
Species Reactivity: (+) Species independent
Form: Liquid
Storage: -20°C (as supplied)
Storage Buffer: PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Stability: ≥1 year
Clone: CC.22.8C7.3
Host: Mouse
Isotype: IgG2b
Applications: ELISA and Western blot (WB); the recommended starting concentration for ELISA is 2 µg - 15 µg/ml and 2 µg/ml for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image

Lane 1: BSA (1 µg)
Lane 2: Nitrotyrosine BSA (0.01 µg)
Lane 3: Nitrotyrosine BSA (0.025 µg)
Lane 4: Nitrotyrosine BSA (0.05 µg)
Lane 5: Nitrotyrosine BSA (0.1 µg)
Lane 6: Nitrotyrosine BSA (0.2 µg)

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**

Nitric oxide (NO) is a product of the enzymatic conversion of arginine to citrulline by nitric oxide synthase. NO reacts rapidly with superoxide \((6.7 \times 10^9 \text{ M}^{-1}\text{sec}^{-1})\) to form peroxynitrite. At physiological pH and in the presence of transition metals, peroxynitrite undergoes heterolytic cleavage to form hydroxyl anion and nitronium ion, the latter of which nitrates protein tyrosine residues. Thus, the presence of nitrotyrosine on proteins can be used as a marker for peroxynitrite formation \textit{in vivo}\textsuperscript{1,2}. Nitrotyrosine has been shown to be present in proteins from a variety of clinical conditions including atherosclerotic lesions of human coronary arteries, postischemic heart, and placenta during preeclampsia.\textsuperscript{3-5} Increased nitration of proteins in motor neurons has been identified in patients with ALS (amyotrophic lateral sclerosis) and may be due to mutations in superoxide dismutase.\textsuperscript{2,5-6}

**References**