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Monoclonal Antibody to Nitrotyrosine - Purified

Alternate names: NO-Tyrosine, Nitro-Tyrosine

Catalog No.: AM03159PU-N

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: Protein tyrosine nitration results in a post-translational modification that is increasingly receiving attention as an mportant component of nitric oxide signaling (2). While multiple nonenzymatic mechanisms are known to be capable of producing nitrated tyrosine residues, most tyrosine nitration events involve catalysis by metalloproteins such as myeloperoxidase, sinophilperoxidase (3), myoglobin, the cytochrome P-450s, superoxide dismutase and prostacyclin synthase.
Nitrotyrosine may also serve as a biomarker for the effects of reactive nitrogen oxides, based on tyrosine residues becoming nitrated in proteins at sites of inflammation induced tissue injury (1). The presence of nitro tyrosine-containing proteins therefore has shown high orrelation to disease states such as atherosclerosis, Alzheimer' disease, Parkinson's disease and amyotrophic lateral sclerosis (4).

Host / Isotype: Mouse / IgG2a

Clone: 39B6

Immunogen: 3-(4-Hydroxy-3-Nitrophenyl Acetamido) Propionic Acid-BSA conjugate

Format: **State:** Liquid purified Ig fraction.
Purification: Affinity Chromatography on Protein G.
Buffer System: PBS containing 0.09% Sodium Azide as preservative in 50% Glycerol.

Applications: ELISA (1,6).
Immunoprecipitation.
Western blot (1): 0.7 µg/ml was sufficient for detection of 5 µg SN-1 treated BSA using Goat anti-Mouse IgG-HRP as the secondary antibody.
Immunohistochemistry on Frozen Sections (1,5).
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Recognizes 3-Nitrotyrosine moieties.
No detectable cross-reactivity with non-Nitrated Tyrosine.
Not species specific.
Species: Human, Mouse, Rat and Dog.
Other species not tested.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings: 1. Girault I. et al. (2001). Free Radical Biology and Medicine, 31 (11): 1375-1387.
2. Gow AJ, Farkouh CR, Munson DA, Posencheq MA, and Ischiropoulos H. (2004). Am J Physiol Lung Cell Mol Physiol. 287(2): L262-8.
3. Takemoto K. et al (2007). Acta Med Okayama 61(1): 17-30.
4. Reynolds MR. et al. (2006) J Nerosci. 26(42): 10636-45.
5. Pfister H., et al. (2002) Vet Pathol. 39: 190-199.
6. Khan J. et al. (1998) Biochem J. 330(2): 795-801.