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Produktinformation



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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3-Nitrotyrosine. Mouse Monoclonal Antibody

BACKGROUND

Protein tyrosine nitration results in a post-translational modification that is increasingly receiving attention as an important component of nitric oxide signaling. 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, eosinophilperoxidase, myoglobin, the cytochrome P-450s, superoxide dismutase and prostacyclin synthase. Various studies have shown that protein tyrosine nitration is limited to specific proteins and that the process is selective. For example, exposure of human surfactant protein A (SP-A) to oxygen-nitrogen intermediates generated by activated alveolar macrophages resulted in specific nitration of SP-A at tyrosines 164 and 166, while addition of 1.2 mM CO₂ resulted in additional nitration at tyrosine 161. The presence of nitrotyrosine-containing proteins has shown high correlation to disease states such as atherosclerosis, Alzheimer's disease, Parkinson's disease and amyotrophic lateral sclerosis. 55 kD 160 kD

IMMUNOGEN

3-Nitrotyrosine-KLH

ORDERING INFORMATION

CATALOG NUMBER

X1719M

SIZE

100 µg

FORM

Unconjugated

HOST/CLONE

Mouse Clone 2A12

FORMULATION

20 mM sodium phosphate, 150 mM sodium chloride, 50% glycerol, 3mM sodium azide, pH 7.5

CONCENTRATION

See vial for concentration

ISOTYPE

IgG1

APPLICATIONS

Western Blot

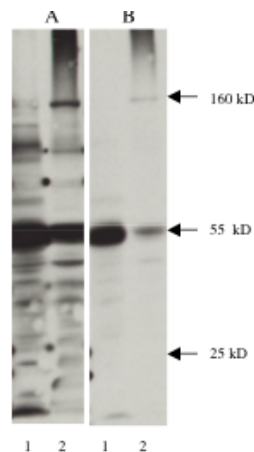
SPECIES REACTIVITY

Ubiquitous

ACCESSION NUMBER

A. Western blot using Exalpa's anti 3-nitrotyrosine monoclonal antibody (Cat # X1719M) on 40 µg mouse brain lysate (Lane 1) and 40 µg rat brain lysate (Lane 2). Antibody used at a dilution of 1 µg/ml, detected with Supersignal West Pico Substrate -30 second exposure.

B. Same experiment blocked with buffer containing 1 mM 3-nitrosine.



POSITIVE CONTROL/TISSUE EXPRESSION

COMMENTS

Antibody can be used for Western blotting (Suggested dilution - 1:1000) and immunohistochemistry. Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Knight-Lozano, C.A., et al. 'Cigarette smoke exposure and hypercholesterolemia increase mitochondrial damage in cardiovascular tissues.' *Circulation*, 105, 849-854 (2002).
2. Khan, F. & Siddiqui, A.A. 'Prevalence of anti-3-nitrotyrosine antibodies in the joint synovial fluid of patients with rheumatoid arthritis, osteoarthritis and systemic lupus erythematosus.' *Clin Chim Acta*, 370, 100-107 (2006).
3. Deeb, R.S., et al. 'Tyrosine nitration in prostaglandin H2 synthase.' *J Lipid Res*, 43, 1718-1726 (2002).
4. Blanchard-Fillion, B., et al. 'Metabolism of 3-nitrotyrosine induces apoptotic death in dopaminergic cells.' *J Neurosci*, 26, 6124-6130 (2006).

PRODUCT SPECIFIC REFERENCES