

3-Nitrotyrosine Rabbit pAb

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Catalog # AP94442

Product Information

Application	WB, IHC-P, IHC-F, IF
Host	Rabbit
Clonality	Polyclonal
Physical State	Liquid
Immunogen	KLH conjugated Nitrotyrosine
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Nitrotyrosine is a marker for inflammation and nitric oxide (NO) production and is formed in the presence of the active metabolite NO. Because nitrotyrosine is a stable product of multiple pathways, such as the formation of peroxynitrite, its plasma concentration may be a useful determinant of NO-dependent damage in vivo. Nitrotyrosine has been detected in inflammatory processes such as septic shock, rheumatoid arthritis, celiac disease, atherosclerotic plaques and chronic renal failure. 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 tyrosinenitration 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 mMCO₂ 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.

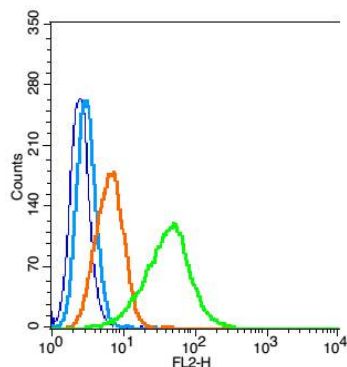
Additional Information

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 µg/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Background

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Images



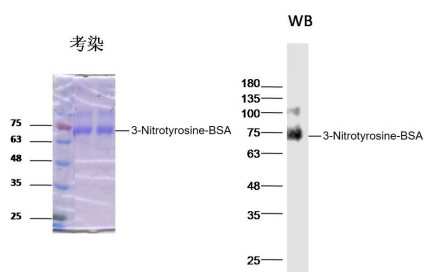
Blank control: Hela(blue), the cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice..

Isotype Control Antibody: Rabbit IgG(orange) ;

Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue),

Dilution: 1:100 in 1 X PBS containing 0.5% BSA ;

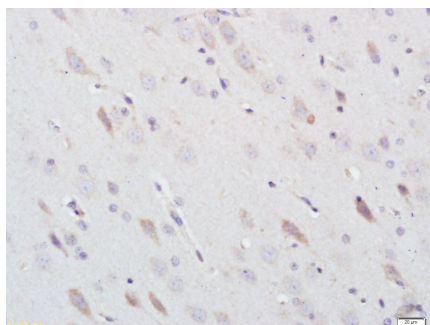
Primary Antibody Dilution: 1 µg in 100 µL 1X PBS containing 0.5% BSA(green).



Sample: 3-Nitrotyrosine-BSA conjugate Protein

Primary: Anti-3-Nitrotyrosine (AP94442) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Nitro tyrosine Polyclonal Antibody, Unconjugated(AP94442) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.