bs-8551R **[Primary Antibody]**

3-Nitrotyrosine Rabbit pAb

www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

Target: 3-Nitrotyrosine

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

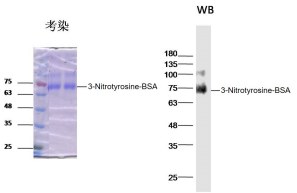
Background: Nitrotyrosine is a marker for inflammation and nitric oxide (NO) production and is formed in the presence of the active metabolite NO. Because nitrotyrosine is a stable product of multiple pathways, such as the formation of peroxynitrite, its plasma concentration may be a useful determinant 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 mMCO 2 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.

Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:50-200)
Flow-Cyt (1μg/Test)

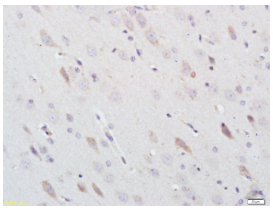
Reactivity: Species independent

Subcellular Location: Cytoplasm

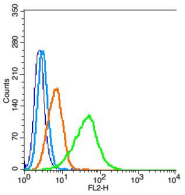
VALIDATION IMAGES



Sample: 3-Nitrotyrosine-BSA conjugate Protein Primary:Anti-3-Nitrotyrosine (bs-8551R) 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(bs-8551R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



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: 1μg in 100 μL1X PBS containing 0.5% BSA(green).

SELECTED CITATIONS

- **[IF=18.027]** Shikai Liu. et al. On-Demand Generation of Peroxynitrite from an Integrated Two-Dimensional System for Enhanced Tumor Therapy. ACS NANO. 2022;XXXX(XXX):XXX-XXX IHC ;Mouse. 35666853
- **[IF=15.881]** Yuan Chen. et al. Intrinsic Radical Species Scavenging Activities of Tea Polyphenols Nanoparticles Block Pyroptosis in Endotoxin-Induced Sepsis. Acs Nano. 2022;XXXX(XXX):XXX-XXX IHC ;Mouse. 35133795
- **[IF=15.1]** Xu-Rui Gu. et al. A renal-targeted gene delivery system derived from spermidine for arginase-2 silencing and synergistic attenuation of drug-induced acute kidney injury. CHEM ENG J. 2024 Apr;486:150125 IHC ;Mouse. 10.1016/j.cej.2024.150125
- **[IF=14.588]** Yan Xuet al. Blockade of Platelets Using Tumor-Specific NO-Releasing Nanoparticles Prevents Tumor Metastasis and Reverses Tumor Immunosuppression. ACS Nano . 2020 Aug 25;14(8):9780-9795. IF ;mouse. 32806062
- **[IF=12.4]** Yanfei Cheng. et al.GLSP mitigates vascular aging by promoting Sirt7-mediated Keap1 deacetylation and Keap1-Nrf2 dissociation.Theranostics. IF ;Mouse. 10.7150/thno.110324