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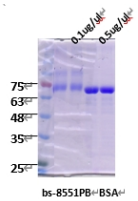
3-Nitrotyrosine/BSA

Catalog Number: bs-8551PB
Concentration: 1mg/ml
AA Seq: Coupling protein
Tags: N/A
Activity: No
Endotoxin: Not analyzed
Form: Liquid
Storage: 0.01M PBS(pH7.4).
Stored at -70°C or -20°C. 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.

VALIDATION IMAGES



Lane 1&2: 3-Nitrotyrosine/BSA Lane 3&4: BSA