

Catalog No. LF-PA0067

POLYCLONAL ANTIBODY



## Anti-Nitrotyrosine

**Background :** Nitrotyrosine is a relatively stable product formed from various reaction pathways. Perhaps most notable is the reaction of peroxynitrite (formed from Superoxide and nitric oxide radicals) with tyrosine. As a strong oxidant and nitrating agent, peroxynitrite mediates tyrosine nitration reactions on proteins resulting in inactivation of certain housekeeping enzymes (e.g.  $\alpha$ 1-antiproteinase) as well as endogenous antioxidant enzymes such as catalase and SOD. Nitrotyrosine has been identified as an indicator of cell damage and inflammation, as well as of the production of NO. It is believed that measuring the concentration of nitrotyrosine will serve as a marker for damage caused by NO in the cell. Nitrotyrosine has been implicated in the pathogenesis of several inflammatory, infectious and degenerative human diseases, such as Alzheimer's disease, amyotrophic lateral sclerosis (ALS), asthma, atherosclerosis and a variety of conditions precipitated by endothelial injury.

**Immunogen :** Synthetic peptide

**Host :** Rabbit                      **Isotype :** IgG

**Type :** Purified                      **Size :** 100  $\mu$ l

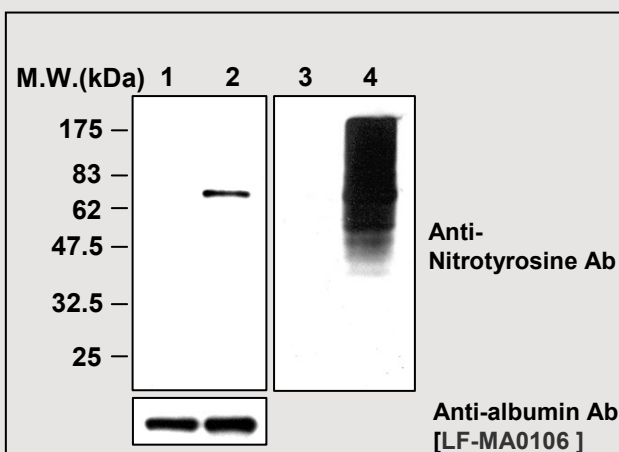
**Composition :** PBS containing 50% glycerol

**Positive control :** A431 cell lysate treated with 10mM peroxynitrite

**Storage :** Store for 1 year at  $-20^{\circ}\text{C}$  from date of shipment

### Species cross reactivity

Human +	Mouse NT	Rat NT
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### Immunoblot Analysis of cell lysates

Lane 1 : Human albumin protein  
Lane 2 : Human albumin protein treated with 10mM peroxynitrite  
Lane 3 : A431 cell lysate  
Lane 4 : A431 cell lysate treated with 10mM peroxynitrite

### Applications :

Western blotting (1:2,000)

### Background Reference :

- 1) Hanafy KA, et al, Med Sci Monit. 2001; vol.7(4): pp.801-19.
- 2) Nakazawa H, et al, Free Radic Res. 2000; vol.33(6): pp.771-84.
- 3) Ceriello A. Int J Clin Pract Suppl. 2002; vol.129: pp.51-8.

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