



POLYCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. KMU-P01

Anti-Nitroguanosine polyclonal antibody

BACKGROUND

8-Nitroguanosine is a nitrated nucleic acid which is formed by peroxyxynitrite, myeloperoxidase, nitrite, and peroxide. It is known that the nitration of guanine is enhanced in virus infection^{1,2}, bacterial infection^{3,4}, inflammatory disease⁵, cancers⁵, and diseases associated with smoking⁶. 8-nitroguanosine is thought to be one of the makers of DNA damage caused by oxidative stress. Cyclic GMP (cGMP) is one of the important substances for the signal transfer. On the other hand, 8-Nitro-cGMP (nitrated cGMP) has been identified *in vivo*³. Therefore, 8-Nitro-cGMP can potentially act as a mediator for reactive oxygen signaling^{3,7}. Anti-Nitroguanosine polyclonal antibody, does not cross-react with normal nucleobases, it selectively reacts with nitrated nucleic acid such as nitroguanosine, nitroguanine, and nitroxanthine. Therefore, Anti-Nitroguanosine polyclonal antibody is universal antibody of nitrated guanine which modified 8th position of guanine with nitro group. Anti-Nitroguanosine polyclonal antibody has very high affinity for 8-nitroguanine and 8-nitroguanosine, but it does not cross-react with normal guanosine, guanine, 8-hydroxyguanine or 3-nitrotyrosine. Since this antibody was prepared using rabbits, it can be used for immuno-histostaining of rodent tissues.

Product type	Primary antibodies
Host	Rabbit
Form	Liquid
	200 ug/ml PBS solution; 0.1% ProClin as a preservative
Volume	200 ug

Application notes	IHC, ELISA Immunohistochemistry, 10 ug/ml ELISA, 10 ug/ml Optimal dilutions/concentrations should be determined by the end user.
Cross reactivity	Strongly reacts (1 umol/l) 8-NO ₂ -guanosine, 8-NO ₂ -guanine No cross-reaction guanosine, guanine, 8-OH-guanine, 3-NO ₂ -tyrosine

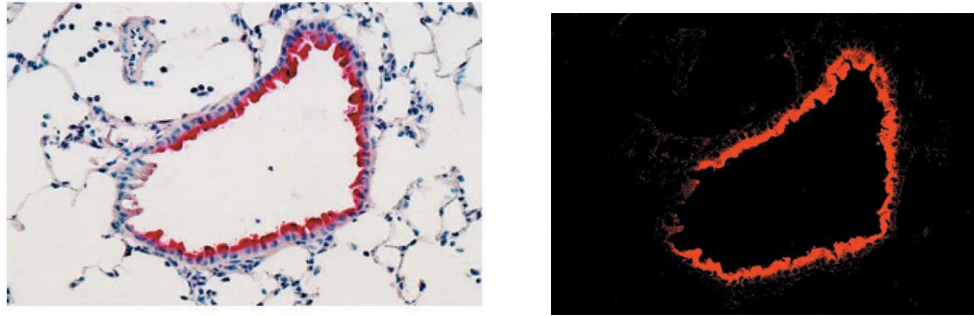


Fig. 1. Immunostaining example of influenza virus-infected mouse lung epithelial cell.

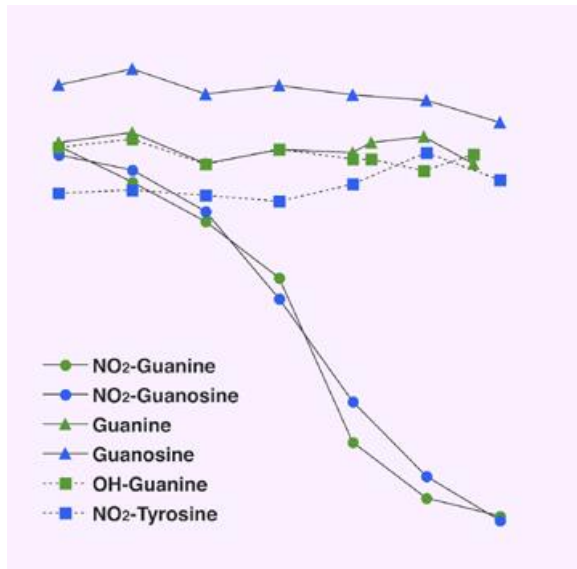


Fig. 2. Reactivity of Aniti-Nitroguanosine polyclonal antibody.



Storage Store below -20°C (below -70°C for prolonged storage).
Aliquot to avoid cycles of freeze/thaw.

- References**
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