Revised: 20–July–2001

Anti-Nitrotyrosine Antibody, Rabbit Fraction (A-21285)

Quick Facts

Storage upon receipt:

- 4°C or –20°C in aliquots
- Avoid freeze-thaw cycles

Introduction

Nitric oxide interacts rapidly with superoxide to form peroxynitrite, a potent oxidant that can modify tyrosine residues to form 3-nitrotyrosine.[1] High levels of nitotryrosine are associated with a large number of diseases, including multiple sclerosis, Alzheimer's and Parkinson's.[2] At the protein level, tyrosine nitration can lead to loss or alteration of protein function, as demonstrated for the oncogenic protein p53[3] and the mitochondrial protein, manganese superoxide dismutase.[1] Molecular Probes offers an anti-nitrotyrosine antibody (A-21285) for detection of nitrotyrosine-containing proteins and peptides. The antibody is suitable for both immunohistochemical and Western blotting applications and should be useful for the identification of nitrated proteins in tissues.

Contents and Storage

The anti-nitotyrosine polyclonal antibodies are produced by immunizing rabbits with keyhole limpet hemocyanin (KLH) containing nitrated tyrosines. The antibody fraction is supplied in a unit size of 0.5 mL as a 1 mg/mL solution in phosphate-buffered saline (PBS), pH 7.2, containing 5 mM sodium azide as a preservative. When stored undiluted at 4°C, the antibody fraction is stable for at least three months. For longer storage, divide the solution into single-use aliquots and freeze at -20°C. Frozen aliquots are stable for at least six months. AVOID REPEATED FREEZING AND THAWING.

Applications

Because staining protocols vary with application, the appropriate dilution of antibody should be determined empirically. For initial experiments, we recommend trying dilutions ranging from 1:200 to 1:2000 for immunohistochemical applications and for Western-blot analysis.

References

1. Proc Natl Acad Sci USA 93, 11853 (1996); **2.** Methods Enzymol 301, 373 (1999); **3.** Biochem Biophys Res Comm 267, 609 (2000).

Product List *Current prices may be obtained from our Web site or from our Customer Service Department.*

Cat #	Product Name	Unit Size
A-21285	anti-nitrotyrosine, rabbit IgG fraction *1 mg/mL*	0.5 mL

Contact Information

Further information on Molecular Probes' products, including product bibliographies, is available from your local distributor or directly from Molecular Probes. Customers in Europe, Africa and the Middle East should contact our office in Leiden, the Netherlands. All others should contact our Technical Assistance Department in Eugene, Oregon.

Please visit our Web site — **www.probes.com** — for the most up-to-date information

Molecular Probes, Inc.
PO Box 22010, Eugene, OR 97402-0469
Phone: (541) 465-8300 ● Fax: (541) 344-6504

Customer Service: 7:00 am to 5:00 pm (Pacific Time)
Phone: (541) 465-8338 ● Fax: (541) 344-6504 ● order@probes.com

Toll-Free Ordering for USA and Canada:
Order Phone: (800) 438-2209 ● Order Fax: (800) 438-0228

Technical Assistance: 8:00 am to 4:00 pm (Pacific Time)
Phone: (541) 465-8353 ● Fax: (541) 465-4593 ● tech@probes.com

Molecular Probes Europe BV
PoortGebouw, Rijnsburgerweg 10
2333 AA Leiden, The Netherlands
Phone: +31-71-5233378 ● Fax: +31-71-5233419

Customer Service: 9:00 to 16:30 (Central European Time)
Phone: +31-71-5236850 ● Fax: +31-71-5233419
eurorder@probes.nl

Technical Assistance: 9:00 to 16:30 (Central European Time)
Phone: +31-71-5233431 ● Fax: +31-71-5241883
eurotech@probes.nl

Molecular Probes' products are high-quality reagents and materials intended for research purposes only. These products must be used by, or directly under the supervision of, a technically qualified individual experienced in handling potentially hazardous chemicals. Please read the Material Safety Data Sheet provided for each product; other regulatory considerations may apply.