



Qty: 1 mL

Mouse anti-Nitrated Tau/ α -Synuclein

Catalog No. 39-1800

Lot No.

Mouse anti-Nitrated Tau/ α -Synuclein

FORM

This monoclonal antibody is supplied as a 1 mL aliquot of tissue culture supernatant containing 0.1% sodium azide.

CLONE: n847¹

ISOTYPE: Mouse IgG₁

IMMUNOGEN

Nitrated recombinant human α -Synuclein¹

SPECIFICITY

This antibody is specific for nitrated tau and nitrated α -synuclein. On Western blots, it identifies the nitrated tau target band at ~55-62 kDa. It also reacts with the nitrated α -synuclein target band at ~17 kDa.

This antibody preferentially recognizes nitrated human tau40 in addition to nitrated human α -synuclein and dimers with an apparent molecular weight of ~35 kDa. However, it does not recognize non-nitrated tau or other nitrated proteins such as RNaseA, cyto c, SOD-1, or PLA₂.¹ n847 labels neurons in the hippocampus and neocortex of Alzheimer's disease and Down syndrome brains.¹

REACTIVITY

Reactivity has been confirmed with rat PC-12 cell lysates and recombinant human α -Synuclein.

Sample	Immunohistochemistry (70% ethanol or 10% neutral buffered formalin-fixed tissues) ¹	Immunofluorescence ¹	Western Blotting
Human	++	++	++
Mouse	ND	ND	ND
Rat	ND	ND	+++

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Immunohistochemistry¹: 1:10 - 1:20
Immunofluorescence¹: 1:10 - 1:20
Western Blotting: 1:30 - 1:100

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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BACKGROUND

Oxidative and nitrative injury is implicated in the pathogenesis of Alzheimer's disease (AD) and Down syndrome (DS), as well as in the formation of filamentous neurofibrillary tau lesions.¹ Oxidative injury occurs when the production of reactive species overwhelms the compensatory antioxidant capacity of cells. Tau is an abundant microtubule-associated protein of the central nervous system that is primarily expressed in neurons, but also in glia at lower levels.²

REFERENCES

1. Horiguchi T, et al. *Am J Pathol* 163(3):1021-1031, 2003.
2. Cleveland DW, et al. *J Mol Biol* 116(2):207225, 1977.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

Conjugate	ZyMAX[™] Goat x Rabbit IgG (H+L)	ZyMAX[™] Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy [™] 3	81-6115	81-6515
Cy [™] 5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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