



Product Information

ANTI- β -SYNUCLEIN Developed in Rabbit, IgG Fraction of Antiserum

Product Number **S1436**

Product Description

Anti- β -Synuclein is developed in rabbit using a synthetic peptide (EVAQEAAEEPLIEPL) conjugated to KLH via an N-terminal cysteine as immunogen. This sequence corresponds to amino acids 99-111 from the human β -synuclein protein.

Anti- β -Synuclein reacts specifically with β -synuclein (19 kDa) by immunoblotting using brain tissue and HeLa cell extracts. The antibody recognizes human, rat and mouse β -synuclein. Anti- β -Synuclein may be used to detect β -synuclein by immunoblotting, immunohistochemistry and immunofluorescence.

The synucleins comprise a novel protein family consisting of three highly homologous family members, designated α , β and γ synuclein.¹ β -synuclein was first identified as a brain specific protein from bovine tissue (PNP-14)² and has been shown to be a substrate for phosphorylation *in vivo* and *in vitro* by CAM Kinase II.³ β -synuclein is highly homologous to α -synuclein, particularly within the N-terminus and exhibits protein distribution within the nervous system where it is concentrated in presynaptic terminals.

Components

Anti- β -Synuclein is supplied in 0.05 M sodium phosphate buffer containing 0.1% sodium azide and 0.2% gelatin.

Protein concentration is approximately 1 mg/ml.

Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution.

Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

Store at 2-8°C. **Do Not Freeze.** If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended concentration for immunoblotting is 1-2 μ g/ml using mouse brain or rat extract and chemiluminescence detection.

The recommended concentration for immunohistochemistry is 0.5-2 μ g/ml using frozen mouse or rat brain tissue with DAB detection. The brain sections are fixed in 4% paraformaldehyde. Staining is completely abolished by preincubating the purified antibody with control peptide at 10^{-6} M.

The recommended concentration for immunofluorescence is 1.5 μ g/ml using rat brain tissue.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilution by titration test.

References

1. Clayton, D. F. and George, J. M., Trends Neuro., **21**, 249-254 (1998).
2. Nakajo, S., et al., J. Neurochem., **55**, 2031-2038 (1990).
3. Nakajo, S., et al., Eur. J. Biochem., **217**, 1057-1063 (1993).

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