

Product Information

Anti-Polyglutamines antibody, Mouse Monoclonal

~2 mg/mL, clone 3B5H10, purified from hybridoma cell culture

P1874

Product Description

Anti-Polyglutamines (mouse IgG1 isotype) is derived from the hybridoma 3B5H10 produced by the fusion of mouse myeloma cells (P3X63Ag8.653) and splenocytes from BALB/c mice immunized with GST-human Huntingtin (N-terminal fragment of 171 amino acids containing 65Q).¹ The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Cat. No. ISO-2.

Anti-Polyglutamines recognizes homomeric polyglutamines independent of the species. The product is useful in ELISA, immunoblotting,¹ slot blot,² immunoprecipitation¹ and immunocytochemistry.¹

Genes involved in Huntington's disease (HD), X-linked spinal bulbar muscular atrophy (XSBMA), dentatorubropallidoluysian atrophy and several spinocerebellar ataxias, have an abnormal expansion of triplet CAG (or CAA) codon causing a homomeric stretch of polyglutamines within the protein.¹⁻⁴ The pathogenic versions of the polyglutamines expansion is usually greater than 35 residues in length. These extensions affect the protein function and confer a toxic effect to the proteins that contain them. Proteins containing long polyglutamine expansions aggregate with each other or with other proteins. Insoluble microscopic protein deposits in cells (inclusion bodies) are correlated with disease and have been proposed to be a major pathogenic feature of proteins that contain abnormal polyglutamine expansions. Inclusion bodies harm neurons by several mechanisms, such as disrupting cytoarchitecture, sequestering other essential proteins, or abnormally inhibiting or activating specific biological processes.¹⁻⁴

Reagents

The product is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: approx. 2 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. 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

A working concentration of 1-2 µg/mL is determined by immunoblotting, using extract of HEK-293T cells transfected with an N-terminal 171 amino acid fragment of human Huntingtin with a 68 glutamine stretch.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Brooks, E., et al., *Methods Mol. Biol.*, **277**, 103-128 (2004).
2. Wacker, J.L., et al., *Nat. Str. Mol. Biol.*, **11**, 1215-1222, (2004).
3. Gusella, J.F. and MacDonald, M.E. *Annu. Rev. Med.* **47**, 201-209, (1996).
4. Zoghbi, H.Y. and Orr, H.T. *Annu. Rev. Neurosci.* **23**, 217-247, (2000).

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