



Catalog Number: PR27235

Product Type: Recombinant Protein

Source: *E. Coli*

Amino Acid Sequence: MESIFHEKQE GSLCAQHCLN NLLQGEYFSP VELSSIAHQL DEEERMMAE GGVTSEDYRT FLQQPSGNMD DSGFFSIQVI SNALKVWGLELILFNSPEYQ RLRIDPINER SFICNYKEHW FTVRKLGKQW FNLNSLLTGP ELISDYLAL FLAQLQEGY SIFVVKGDLP DCEADQLLQM IRVQQMHRPK LIGEELAQLK EQRVHKTDLE RVLEANDGSG MLDEDEEDLQ RALALSRQEI DMEDEEADLR RAIQLSMQGS SRNISQDMTQ TSGTNLTSEE LKRREAYFE KQQQKQQQQQ KQQQKQQQQQ KQQQKQQQQQ QQQQGLSGQ SSHPCERPAT SSGALGSDLG DAMSEEDMLQ AAVTMSLETY RNDLKTEGKK..

Description/Molecular Mass: Ataxin 3 is otherwise known as Machado-Joseph disease protein 1. Machado-Joseph disease is a hereditary autosomal dominant neurodegenerative disorder. ATXN3 contains trinucleotide CAG repeats in the coding region, and the expansion of these repeats from the normal 13-36 to 68-79 causes the Machado-Joseph disease. ATXN3 is a poly-ubiquitin-binding protein whose cellular turnover is regulated by its catalytic activity. In addition, ATXN3 is a proteasome-associated factor which mediates the degradation of ubiquitinated proteins. ATXN3 folds reversibly using a single intermediate; partial destabilization of ATXN3 by chemical denaturation causes the formation of fibrillar aggregates by the non-pathological variant. Ataxin-3 interacts with the major histone acetyltransferases cAMP-response-element binding protein (CREB)-binding protein, p300, and p300/CREB-binding protein-associated factor and hinders transcription by these coactivators.

ATXN3 produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 370 amino acids (1-370 a.a.) and having a molecular mass of 42.4kDa.

ATXN3 is purified by proprietary chromatographic techniques.

Purity: Greater than 90.0% as determined by:
(a) Analysis by SDS-PAGE.

Format: The ATXN3 protein solution contains 20mM Tris-HCl buffer (pH 7.5), 2mM DTT, 50mM NaCl and 10% glycerol.

Storage: Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

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www.neuromics.com

Neuromics • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com