

Division of Signal Transduction Therapy

Standard Operating Procedure

Preparation of ATXN1 [1 – 765]

Enzyme description:- ATXN1 [1 - 765]

Clone number:- DU 31668

Source:- Recombinant

Expression system:- *E.coli*

Tag:- N-terminal GST

Purification method:- GSH Sepharose

Calculated molecular mass:-

Monoisotopic 113, 675.80 daltons

Average Mass 113, 746.82 daltons

[cysteines reduced, methionines have not been oxidised]

Theoretical pI:- 7.25

Purity:- >80 %

Enzyme storage buffer:-

50 mM Tris-HCl pH 7.5, 270 mM Sucrose, 150 mM NaCl, 0.1 mM EGTA,
0.1 % 2-mercaptoethanol, 0.02 % Brij-35, 1 mM benzamidine, 0.2 mM PMSF

Storage temperature:- -70 °C

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Clone Data Sheet

ATXN1 [1 - 765]

Protein ATXN1 [1 - 765]

Clone number DU 31668

Species Human

Accession number NM_001128164.1

Tags N-terminal GST

Bacterially expressed protein MSPILGYWKIKGLVQPTRLLEYLEEKYEHLIERDEGDKWRNKKFELG
LEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAIEISMLEGA
VLDIRYGVSRIAYSKDFETLKVDLFLSKLPEMLKMFEDRLCHKTYLNGDH
VTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAIPOIDKYLKSS
KYIAWPLQGWQATFGGGDHPPKSDLEVLVLFQGPLGSMKSNQERSNECLPP
KKREIPATSRSSSEKAPTLPSDNHRVEGTAWLPGNPGGRGHGGGRHGPA
GTSVELGLQOGIGLHKALSTGLDYSPPSAPRSVPVATTLPAAAYATPQPG
TPVSPVQYAHLPHTFQFIGSSQYSGTYASFIPSQLIPPTANPVTSAVAS
AAGATTPSQRSQLEAYSTLLANMGSLSQTPGHKAEQQQQQQQQQQQQHQ
HQQQQQQQQQQQQQQHLSRAPGLITPGSPPPAQONQYVHISSSPQNTGR
TASPPAIPVHLHPHTMI PHTLTLGPPSQVVMQYADSGSHFVPREATKK
AESSRLQQAIOAKEVLNGEMEKSRRYGAPSSADLGLGKAGGKSVPHPYE
SRHVVVHPSPSDYSSRDPSGVRASVMVLPNSNTPAADLEVQOATHREAS
PSTLNDKSGHLGKPGHRSYALSPHTVIQTTHSASEPLPVGLPATAFYA
GTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDMEASGA
APAIVTSSPQFAAVPHTFVTALPKSENFNPEALVTQAAYPAMVQAQIH
LPVVQSVASPAAPPTLPPYFMKGSIIQLANGELKKVEDLKTEDFIQSA
EISNDLKIDSSTVERIEDSHSPGVAVIQFAVGEHRAQVSVEVLVEYPPF
VFGQGWSSCCPERTSQLFDLPCSKLSVGDVCISLTLKNLKNKNGSVKKGQP
VDPASVLLKHSKADGLAGSRHRYAEQENGINQGSQAQMLSENGELKFPEK
MGLPAAPFLTKIEPSKPAATRKRKRRWSAPESRKLEKSEDEPPLTLPKPSL
IPQEVKICIEGRSNVGK

Native sequence Amino acids M1 – K765 (end) of human ATXN1.
Residue M232 of the fusion protein is equivalent to M1 of the native enzyme. The GST tag is located at residues 1 – 220.

Protease cleavage PreScission (LEVLFQGP) residues 221 – 228

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TGGAGAAGTCAGAAGACGAACCACCTTTGACTCTTCCTAAGCCTTCTCTA
ATTCCTCAGGAGGTTAAGATTTGCATTGAAGCCGGTCTAATGTAGGCAA
Gtagcggccgc