

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse ATN1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human ATN1 Met1-Gln100 Accession # P54259
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

ATN1 (Atrophin-1; also DRPLA protein) is a 190-200 kDa member of the Atrophin family of proteins that is cleaved into 120-150 kDa fragments. ATN1 is a ubiquitously expressed transcriptional coactivator. Human ATN1 is 1185 amino acids (aa) in length. It contains multiple motifs, including an NLS (aa 16-32), interspersed poly-Pro, poly-Ser and poly-His regions (aa 376-707), two RE (ArgGlu) repeats (aa 816-934), and an NES (aa 1033-1042). There are at least 17 utilized phosphorylation sites and one acetylated Lys. ATN1 is most characterized by a poly-Gln region between aa 484-497. Normally, there are about 20 consecutive Gln residues, but this number may be increased to more than 70 in pathologic conditions. Proteolytic cleavage generates large C-terminal fragments of 120-150 kDa size. These are unlikely to contain the NLS, and thus are typically cytosolic. ATN1 is suggested to form heterodimers with full-length ATN2/RERE, thus generating a transcriptional repressor. There are multiple potential isoforms. One shows an alternative start site at Met527, while others differ in the number of glutamines in the poly-Gln region. Over aa 1-100, human ATN1 shares 94% aa identity with mouse ATN1.

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