

**ATL1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16799b****Specification**

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**ATL1 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q8WXF7</a>
Other Accession	<a href="#">Q6PST4</a> , <a href="#">Q8BH66</a> , <a href="#">Q60HD2</a> , <a href="#">Q58D72</a> , <a href="#">NP_001121185.1</a> , <a href="#">NP_056999.2</a>
Reactivity	Human
Predicted	Bovine, Monkey, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	477-504

**ATL1 Antibody (C-term) - Additional Information****Gene ID** 51062**Other Names**

Atlastin-1, 365-, Brain-specific GTP-binding protein, GTP-binding protein 3, GBP-3, hGBP3, Guanine nucleotide-binding protein 3, Spastic paraplegia 3 protein A, ATL1, GBP3, SPG3A

**Target/Specificity**

This ATL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 477-504 amino acids from the C-terminal region of human ATL1.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ATL1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**ATL1 Antibody (C-term) - Protein Information****Name** ATL1 ([HGNC:11231](#))

**Function** Atlantin-1 (ATL1) is a membrane-anchored GTPase that mediates the GTP-dependent fusion of endoplasmic reticulum (ER) membranes, maintaining the continuous ER network. It facilitates the formation of three-way junctions where ER tubules intersect (PubMed:[14506257](#), PubMed:[18270207](#), PubMed:[19665976](#), PubMed:[27619977](#), PubMed:[34817557](#), PubMed:[38509071](#)). Two atlantin-1 on neighboring ER tubules bind GTP and form loose homodimers through the GB1/RHD3-type G domains and 3HB regions. Upon GTP hydrolysis, the 3HB regions tighten, pulling the membranes together to drive their fusion. After fusion, the homodimer disassembles upon release of inorganic phosphate (Pi). Subsequently, GDP dissociates, resetting the monomers to a conformation ready for a new fusion cycle (PubMed:[14506257](#), PubMed:[21220294](#), PubMed:[21368113](#), PubMed:[23334294](#), PubMed:[38509071](#)). May also regulate more or less directly Golgi biogenesis (PubMed:[17321752](#)). Indirectly regulates axonal development (By similarity).

#### Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:Q6PST4}. Note=Localizes to endoplasmic reticulum tubular network (PubMed:27619977).

#### Tissue Location

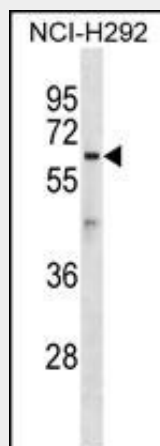
Expressed predominantly in the adult and fetal central nervous system. Measurable expression in all tissues examined, although expression in adult brain is at least 50-fold higher than in other tissues. Detected predominantly in pyramidal neurons in the cerebral cortex and the hippocampus of the brain. Expressed in upper and lower motor neurons (at protein level)

#### ATL1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### ATL1 Antibody (C-term) - Images



ATL1 Antibody (C-term) (Cat. #AP16799b) western blot analysis in NCI-H292 cell line lysates

(35ug/lane). This demonstrates the ATL1 antibody detected the ATL1 protein (arrow).

#### **ATL1 Antibody (C-term) - Background**

The protein encoded by this gene is a GTPase and a Golgi body transmembrane protein. The encoded protein can form a homotetramer and has been shown to interact with spastin and with mitogen-activated protein kinase kinase kinase kinase 4. This protein may be involved in axonal maintenance as evidenced by the fact that defects in this gene are a cause of spastic paraplegia type 3. Three transcript variants encoding two different isoforms have been found for this gene.

#### **ATL1 Antibody (C-term) - References**

Cirulli, E.T., et al. Eur. J. Hum. Genet. 18(7):815-820(2010)  
Park, S.H., et al. J. Clin. Invest. 120(4):1097-1110(2010)  
Yoshida, T., et al. Int. J. Mol. Med. 25(4):649-656(2010)  
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