

AFG3L2 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS16860**Specification**

AFG3L2 Antibody - Product Information

Application	IHC, WB
Primary Accession	O9Y4W6
Other Accession	10939
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	88584

AFG3L2 Antibody - Additional Information**Gene ID** 10939**Other Names**

AFG3L2, AFG3-like protein 2, SPAX5, Spinocerebellar ataxia 28, Paraplegin-like protein, ATPase family gene 3, yeast, SCA28

Target/Specificity

Human AFG3L2

Reconstitution & Storage

PBS, pH 7.4, 0.03% Proclin 300, 50% glycerol. Aliquot and store at -20°C or -80°C. Avoid freeze-thaw cycles.

Precautions

AFG3L2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

AFG3L2 Antibody - Protein Information**Name** AFG3L2 ([HGNC:315](#))**Function**

ATP-dependent protease which is essential for axonal and neuron development. In neurons, mediates degradation of SMDT1/EMRE before its assembly with the uniporter complex, limiting the availability of SMDT1/EMRE for MCU assembly and promoting efficient assembly of gatekeeper subunits with MCU (PubMed:27642048). Required for paraplegin (SPG7) maturation (PubMed:30252181). After its cleavage by mitochondrial-processing peptidase (MPP), it converts paraplegin into a proteolytically active mature form (By similarity). Required for the maturation of PINK1 into its 52kDa mature form after its cleavage by mitochondrial-processing peptidase (MPP) (PubMed:22354088, PubMed:22354088).

[30252181](http://www.uniprot.org/citations/30252181)). Involved in the regulation of OMA1-dependent processing of OPA1 (PubMed:[32600459](http://www.uniprot.org/citations/32600459), PubMed:[30252181](http://www.uniprot.org/citations/30252181)). Contributes to the proteolytic degradation of GHITM upon hyperpolarization of mitochondria (PubMed:[35912435](http://www.uniprot.org/citations/35912435)). Progressive GHITM degradation upon persistent hyperpolarization leads to respiratory complex I degradation and broad reshaping of the mitochondrial proteome by AFG3L2 (PubMed:[35912435](http://www.uniprot.org/citations/35912435)).

Cellular Location

Mitochondrion. Mitochondrion inner membrane {ECO:0000250|UniProtKB:Q8JZQ2}; Multi-pass membrane protein

Tissue Location

Ubiquitous. Highly expressed in the cerebellar Purkinje cells.

AFG3L2 Antibody - Protocols

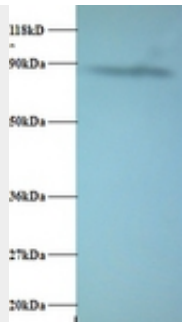
Provided below are standard protocols that you may find useful for product applications.

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

AFG3L2 Antibody - Images



Anti-AFG3L2 antibody IHC staining of human kidney.



Western blot of AFG3-like protein 2 Antibody at 2 ug/ml + EC109 whole cell lysate at 20 ug.

AFG3L2 Antibody - Background

ATP-dependent protease which is essential for axonal development.

AFG3L2 Antibody - References

- Banfi S.,et al.Genomics 59:51-58(1999).
Atorino L.,et al.J. Cell Biol. 163:777-787(2003).
Koppen M.,et al.Mol. Cell. Biol. 27:758-767(2007).
Burkard T.R.,et al.BMC Syst. Biol. 5:17-17(2011).
Edener U.,et al.Eur. J. Hum. Genet. 18:965-968(2010).