

#### SPG20 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16276b

### **Specification**

### SPG20 Antibody (C-term) - Product Information

Application WB,E
Primary Accession Q8N0X7

Other Accession Q8R1X6, A0JNJ3, NP\_001135766.1,

NP 001135767.1

Reactivity Human

Predicted Bovine, Mouse

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 72833
Antigen Region 491-519

### SPG20 Antibody (C-term) - Additional Information

#### **Gene ID 23111**

#### **Other Names**

Spartin, Spastic paraplegia 20 protein, Trans-activated by hepatitis C virus core protein 1, SPG20, KIAA0610, TAHCCP1

#### Target/Specificity

This SPG20 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 491-519 amino acids from the C-terminal region of human SPG20.

# **Dilution**

WB~~1:1000

#### **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**

SPG20 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

#### SPG20 Antibody (C-term) - Protein Information

Name SPART (HGNC:18514)



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**Function** Lipophagy receptor that plays an important role in lipid droplet (LD) turnover in motor neurons (PubMed:37443287). Localizes to LDs and interacts with components of the autophagy machinery, such as MAP1LC3A/C proteins to deliver LDs to autophagosomes for degradation via lipophagy (PubMed:37443287). Lipid transfer protein required for lipid droplet degradation, including by lipophagy (PubMed:38190532). Can bind and transfer all lipid species found in lipid droplets, from phospholipids to triglycerides and sterol esters but the direction of lipid transfer by spartin and its cargos are unknown (PubMed:38190532). May be implicated in endosomal trafficking, or microtubule dynamics, or both. Participates in cytokinesis (PubMed:20719964).

# **Cellular Location**

Cytoplasm. Midbody. Lipid droplet Note=Transiently associated with endosomes (PubMed:19580544) Colocalized with IST1 to the ends of Flemming bodies during cytokinesis (PubMed:20719964).

#### **Tissue Location**

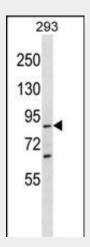
Ubiquitously expressed, with highest levels of expression detected in adipose tissue

#### SPG20 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# SPG20 Antibody (C-term) - Images



SPG20 Antibody (C-term) (Cat. #AP16276b) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the SPG20 antibody detected the SPG20 protein (arrow).

# SPG20 Antibody (C-term) - Background

SPG20 is a protein containing a MIT (Microtubule Interacting and Trafficking molecule) domain, and is implicated in regulating endosomal trafficking and mitochondria function. The





protein localizes to mitochondria and partially co-localizes with microtubules. Stimulation with epidermal growth factor (EGF) results in protein translocation to the plasma membrane, and the protein functions in the degradation and intracellular trafficking of EGF receptor. Multiple alternatively spliced variants, encoding the same protein, have been identified. Mutations associated with this gene cause autosomal recessive spastic paraplegia 20 (Troyer syndrome).

# SPG20 Antibody (C-term) - References

Hooper, C., et al. BMC Biol. 8, 72 (2010):
Milewska, M., et al. J. Neurochem. 111(4):1022-1030(2009)
Tsang, H.T., et al. Hum. Mol. Genet. 18(20):3805-3821(2009)
Edwards, T.L., et al. Biochem. J. 423(1):31-39(2009)
Eastman, S.W., et al. J. Cell Biol. 184(6):881-894(2009)