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ZFYVE27 Rabbit pAb

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Catalog # AP54623

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q5T4F4
Reactivity	Rat, Human, Mouse
Predicted	Dog, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45843
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ZFYVE27
Epitope Specificity	341-411/411
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Recycling endosome membrane. Endoplasmic reticulum membrane. Cell projection > growth cone membrane. Cell membrane. Localizes at both dendrites and axons.
DISEASE	Defects in ZFYVE27 are the cause of spastic paraplegia autosomal dominant type 33 (SPG33) [MIM:610244]. Spastic paraplegia is a neurodegenerative disorder characterized by a slow, gradual, progressive weakness and spasticity of the lower limbs. Rate of progression and the severity of symptoms are quite variable. Initial symptoms may include difficulty with balance, weakness and stiffness in the legs, muscle spasms, and dragging the toes when walking. In some forms of the disorder, bladder symptoms (such as incontinence) may appear, or the weakness and stiffness may spread to other parts of the body. Note=According to PubMed:18606302, the properties of the variant Val-191 and its frequency in some populations raise doubts on the implication of that gene in the disease.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Zinc finger FYVE domain-containing protein 27 (ZFYVE27), also known as SPG33, is a 411 amino acid member of the FYVE-finger family of proteins. The FYVE domain is a cysteine-rich domain of about 70 amino acids that plays a role in the endosomal localization of the FYVE-finger proteins, and a majority of these proteins serve as regulators of endocytic membrane trafficking. ZFYVE27, a multi-pass membrane protein, is an endosomal protein that binds to Spastin, a protein that is primarily involved in microtubule dynamics and severing, vesicular trafficking and endosomal trafficking. Mutations in the gene encoding ZFTVE27 affect neuronal intracellular trafficking in the corticospinal tract and are thought to lead to hereditary spastic paraplegia (HSP), a neurodegenerative disorder, characterized by progressive paralysis of the legs, which is caused by impaired axonal transport. Five isoforms of ZFYVE27 exist as a result of alternative splicing events.

Additional Information

Gene ID	118813
Other Names	Protrudin, Spastic paraplegia 33 protein, Zinc finger FYVE domain-containing protein 27, ZFYVE27, SPG33 {ECO:0000303|PubMed:24668814}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

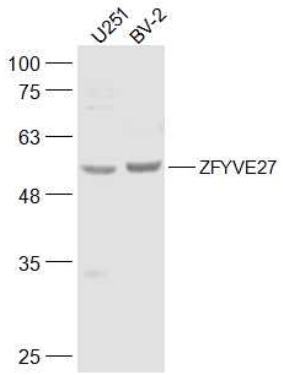
Name	ZFYVE27 {ECO:0000303|PubMed:16826525, ECO:0000312|HGNC:HGNC:26559}
Function	Molecular tethering protein, which plays a role in the formation of membrane contact sites between the endoplasmic reticulum and late endosomes/lysosomes (PubMed:17082457, PubMed:25855459, PubMed:32686675). Promotes neurite formation by tethering endosomes to the endoplasmic reticulum membrane: interacts with Rab7-positive late endosomes, acting as a bridge to form endoplasmic reticulum membrane-endosome contact sites (PubMed:25855459, PubMed:32686675). Acts in cooperation with vesicle-associated membrane protein-associated protein (VAPA or VAPB), thereby facilitating loading of the endosome membrane with KIF5, which is required for movement of the endosomes along microtubules in the plus-end direction (PubMed:19289470, PubMed:21976701, PubMed:25855459). Also associates with Rab11-positive recycling endosomes, facilitating exocytosis and membrane expansion (PubMed:17082457). Contributes to both the formation and stabilization of the tubular endoplasmic reticulum network (PubMed:24668814). Involved in endoplasmic reticulum morphogenesis by regulating the sheet-to-tubule balance and possibly the density of tubule interconnections (PubMed:23969831).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Recycling endosome membrane {ECO:0000250|UniProtKB:Q6P7B7}; Multi-pass membrane protein. Cell projection, growth cone membrane {ECO:0000250|UniProtKB:Q3TXX3}; Multi-pass membrane protein. Note=Localizes at both dendrites and axons (By similarity). Localizes to endoplasmic reticulum tubular network {ECO:0000250|UniProtKB:Q3TXX3, ECO:0000269|PubMed:23969831, ECO:0000269|PubMed:24668814}

Background

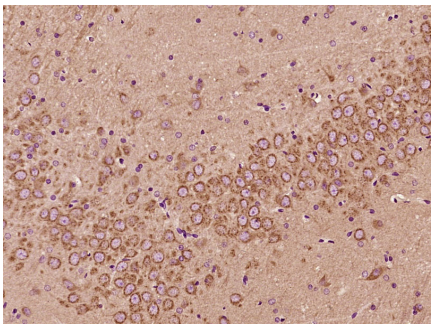
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Images

Sample:



U251(Human) Cell Lysate at 30 ug
BV-2(Mouse) Cell Lysate at 30 ug
Primary: Anti-ZFYVE27 (AP54623) at 1/500 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 46 kD
Observed band size: 51 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ZFYVE27) Polyclonal Antibody, Unconjugated (AP54623) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.