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FKTN Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP12786c

Specification

FKTN Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	O75072
Other Accession	Q60HG0, NP_001073270.1, NP_006722.2
Reactivity	**Human**
Predicted	**Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**53724**
Antigen Region	**177-206**

FKTN Antibody (Center) - Additional Information

Gene ID 2218

Other Names
Fukutin, 2---, Fukuyama-type congenital muscular dystrophy protein, FKTN, FCMD

Target/Specificity
This FKTN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 177-206 amino acids from the Central region of human FKTN.

Dilution
WB~~1:1000
IHC-P~~1:10~50

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
FKTN Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

FKTN Antibody (Center) - Protein Information

Name FKTN (HGNC:3622)

Function Catalyzes the transfer of a ribitol-phosphate from CDP- ribitol to the distal N-acetylgalactosamine of the phosphorylated O- mannosyl trisaccharide (N-acetylgalactosamine-beta-3-N- acetylglucosamine-beta-4-(phosphate-6-)mannose), a carbohydrate structure present in alpha-dystroglycan (DAG1) (PubMed:26923585, PubMed:29477842, PubMed:27194101). This constitutes the first step in the formation of the ribitol 5-phosphate tandem repeat which links the phosphorylated O-mannosyl trisaccharide to the ligand binding moiety composed of repeats of 3-xylosyl-alpha-1,3-glucuronic acid-beta-1 (PubMed:17034757, PubMed:25279699, PubMed:26923585, PubMed:29477842, PubMed:27194101). Required for normal location of POMGNT1 in Golgi membranes, and for normal POMGNT1 activity (PubMed:17034757). May interact with and reinforce a large complex encompassing the outside and inside of muscle membranes (PubMed:25279699). Could be involved in brain development (Probable).

Cellular Location
Golgi apparatus membrane; Single-pass type II membrane protein. Cytoplasm {ECO:0000250|UniProtKB:Q8R507}. Nucleus {ECO:0000250|UniProtKB:Q8R507}. Note=In retinal tissue, does not localize with the Golgi apparatus. {ECO:0000250|UniProtKB:Q8R507}

Tissue Location
Expressed in the retina (at protein level) (PubMed:29416295). Widely expressed with highest expression in brain, heart, pancreas and skeletal muscle (PubMed:11115853). Expressed at similar levels in control fetal and adult brain (PubMed:11115853) Expressed in migrating neurons, including Cajar-Retzius cells and adult cortical neurons, as well as hippocampal pyramidal cells and cerebellar Purkinje cells (PubMed:11115853). No expression observed in the glia limitans, the subpial astrocytes (which contribute to basement membrane formation) or other glial cells (PubMed:11115853)

FKTN Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FKTN Antibody (Center) - Images

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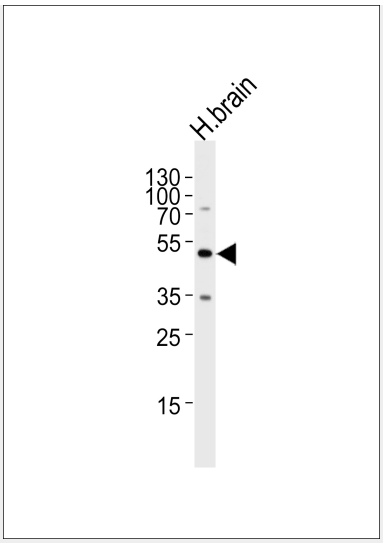
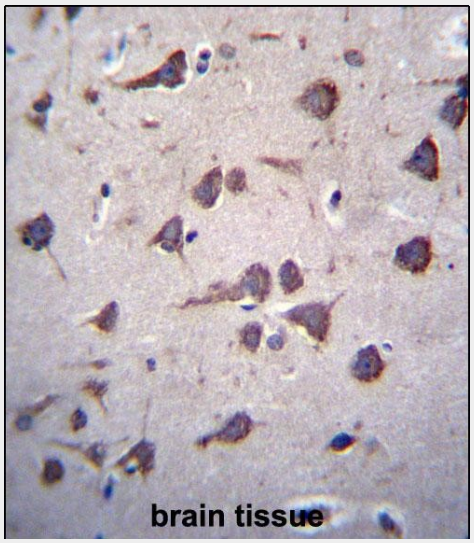


Western blot analysis of lysate from human brain tissue lysate, using FKTN Antibody (Center)(Cat. #AP12786c). AP12786c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.



FKTN Antibody (Center) (Cat. #AP12786c)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of FKTN Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

FKTN Antibody (Center) - Background

The protein encoded by this gene is a putative transmembrane protein that is localized to the cis-Golgi compartment, where it may be involved in the glycosylation of alpha-dystroglycan in skeletal muscle. The encoded protein is thought to be a glycosyltransferase and could play a role in brain development. Defects in this gene are a cause of Fukuyama-type congenital muscular dystrophy (FCMD), Walker-Warburg syndrome (WWS), limb-girdle muscular dystrophy type 2M (LGMD2M), and dilated cardiomyopathy type 1X (CMD1X). Alternatively spliced transcript variants have been found for this gene.

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FKTN Antibody (Center) - References

Lim, B.C., et al. Neuromuscul. Disord. 20(8):524-530(2010)
Saredi, S., et al. Muscle Nerve 39(6):845-848(2009)
Chang, W., et al. Prenat. Diagn. 29(6):560-569(2009)
Mercuri, E., et al. Neurology 72(21):1802-1809(2009)
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