

FKTN / Fukutin Antibody
Rabbit Polyclonal Antibody
Catalog # ALS13654**Specification****FKTN / Fukutin Antibody - Product Information**

Application	WB, IHC-P, IF, ICC
Primary Accession	075072
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A IF~~1:50~200 ICC~~N/A

FKTN / Fukutin Antibody - Additional Information**Gene ID** 2218**Other Names**

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

Target/Specificity

Human Fukutin. Predicted cross-reactivity based on amino acid sequence homology: mouse (90%), rat (91%).

Reconstitution & Storage

Aliquot and store at -20°C. Minimize freezing and thawing.

Precautions

FKTN / Fukutin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

FKTN / Fukutin Antibody - 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: 27194101, PubMed: 29477842). 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:27194101, PubMed:29477842). 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 Cajal-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)

Volume

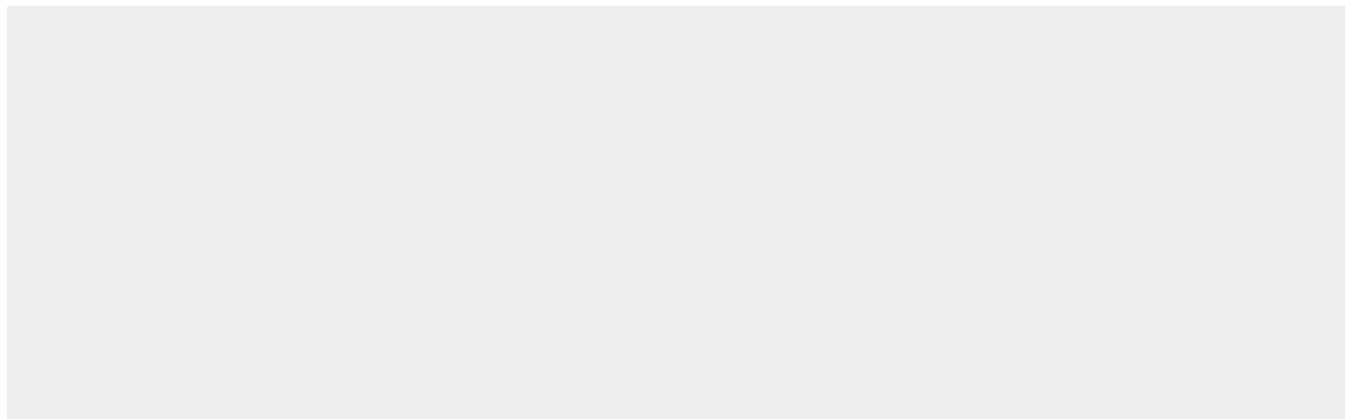
50 µl

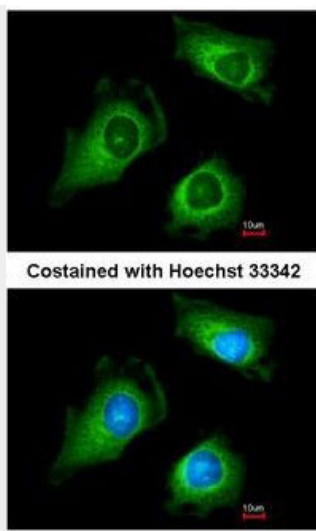
FKTN / Fukutin Antibody - Protocols

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

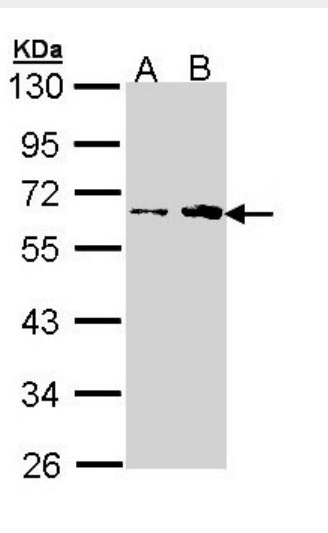
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

FKTN / Fukutin Antibody - Images

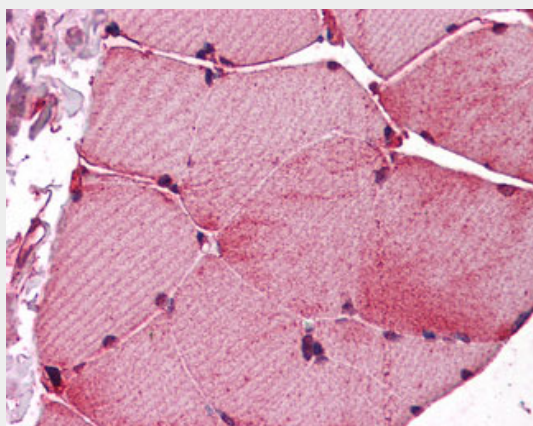




Immunofluorescence of methanol-fixed HeLa, using Fukutin antibody at 1:200 dilution.



Sample (30 ug of whole cell lysate).



Anti-FKTN / Fukutin antibody IHC of human skeletal muscle.

FKTN / Fukutin Antibody - Background

Glycosyltransferase involved in the biosynthesis 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), which is required for binding laminin G-like domain-containing extracellular proteins with high affinity. May interact with and reinforce a large complex encompassing the outside and inside of muscle membranes. Could be involved in brain development.

FKTN / Fukutin Antibody - References

Kobayashi K.,et al.Nature 394:388-392(1998).
Kobayashi K.,et al.FEBS Lett. 489:192-196(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Humphray S.J.,et al.Nature 429:369-374(2004).
Saito K.,et al.Am. J. Med. Genet. 92:184-190(2000).