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FUNDC1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17377a

Product Information

Application	WB, E
Primary Accession	Q8IVP5
Other Accession	Q5BJS4, Q9DB70, F1N5S9, NP_776155.1
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Mouse, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37922
Calculated MW	17178
Antigen Region	79-108

Additional Information

Gene ID	139341
Other Names	FUN14 domain-containing protein 1, FUNDC1
Target/Specificity	This FUNDC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 79-108 amino acids from the N-terminal region of human FUNDC1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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	FUNDC1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FUNDC1
Function	Integral mitochondrial outer-membrane protein that mediates the formation of mitochondria-associated endoplasmic reticulum membranes (MAMs) (PubMed:33972548). In turn, mediates angiogenesis and

neoangiogenesis through interference with intracellular Ca(2+) communication and regulation of the vascular endothelial growth factor receptor KDR/VEGFR2 expression at both mRNA and protein levels (PubMed:33972548). Also acts as an activator of hypoxia-induced mitophagy, an important mechanism for mitochondrial quality and homeostasis, by interacting with and recruiting LC3 protein family to mitochondria (PubMed:22267086, PubMed:24671035, PubMed:24746696, PubMed:27653272). Mechanistically, recruits DRP1 at ER-mitochondria contact sites leading to DRP1 oligomerization and GTPase activity to facilitate mitochondrial fission during hypoxia (PubMed:27145933, PubMed:33978709). Additionally, plays a role in hepatic ferroptosis by interacting directly with glutathione peroxidase/GPX4 to facilitate its recruitment into mitochondria through TOM/TIM complex where it is degraded by mitophagy (PubMed:36828120).

Cellular Location Mitochondrion outer membrane; Multi-pass membrane protein

Tissue Location Widely expressed..

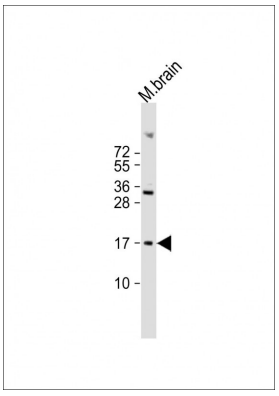
Background

FUNDC1 belongs to the FUN14 family. The exact function of FUNDC1 remains unknown.

References

Terracciano, A., et al. Mol. Psychiatry 15(6):647-656(2010)
Oh, J.H., et al. Mamm. Genome 16(12):942-954(2005)
Ross, M.T., et al. Nature 434(7031):325-337(2005)
Harrington, J.J., et al. Nat. Biotechnol. 19(5):440-445(2001)

Images



Anti-FUNDC1 Antibody (N-term) at 1:2000 dilution + mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 17 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- FUNDC1-dependent mitophagy induced by tPA protects neurons against cerebral ischemia-reperfusion injury
- Hydrogen gas inhalation attenuates sepsis-induced liver injury in a FUNDC1-dependent manner.
- IL-27 disturbs lipid metabolism and restrains mitochondrial activity to inhibit γδ T17 cell-mediated skin inflammation
- Src Activation Aggravates Podocyte Injury in Diabetic Nephropathy Suppression of FUNDC1-Mediated Mitophagy

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