10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ANKFY1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4704b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q9P2R3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24898
Calculated MW	128399
Antigen Region	436-465

Additional Information

Gene ID	51479
Other Names	Rabankyrin-5, Rank-5, Ankyrin repeat and FYVE domain-containing protein 1, Ankyrin repeats hooked to a zinc finger motif, ANKFY1, ANKHZN, KIAA1255
Target/Specificity	This ANKFY1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 436-465 amino acids from the C-terminal region of human ANKFY1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	ANKFY1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ANKFY1 (HGNC:20763)
Synonyms	ANKHZN, KIAA1255
Function	Proposed effector of Rab5 (PubMed: 15328530). Binds to

	phosphatidylinositol 3-phosphate (PI[3]P) (PubMed:15328530). Involved in homotypic early endosome fusion and to a lesser extent in heterotypic fusion of clathrin-coated vesicles with early endosomes (PubMed:15328530). Involved in macropinocytosis; the function is dependent on Rab5-GTP (PubMed:15328530). Required for correct endosomal localization (PubMed:15328530). Involved in the internalization and trafficking of activated tyrosine kinase receptors such as PDGFRB (PubMed:24102721). Regulates the subcellular localization of the retromer complex in a EHD1-dependent manner (PubMed:22284051). Involved in endosome-to-Golgi transport and biosynthetic transport to late endosomes and lysosomes indicative for a regulation of retromer complex-mediated retrograde transport (PubMed:22284051). Required for podocyte migration (PubMed:29959197).
Cellular Location	Cytoplasm. Endosome membrane; Peripheral membrane protein. Early endosome. Note=Also associated with endosomal membranes. Localizes to macropinosomes (PubMed:15328530). On endosomes, partially colocalizes with components of the retromer (PubMed:22284051).
Tissue Location	High expression in whole adult brain and intermediate expression in all other tissues and specific brain regions examined, including fetal brain (PubMed:10574462, PubMed:10940552) Expressed in podocytes (at protein level) (PubMed:29959197)

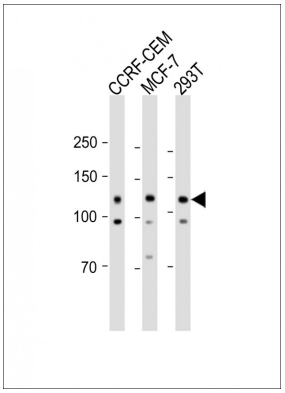
Background

ANKFY1 encodes a cytoplasmic protein that contains a coiled-coil structure and a BTB/POZ domain at its N-terminus, ankyrin repeats in the middle portion, and a FYVE-finger motif at its C-terminus. This protein belongs to a subgroup of double zinc finger proteins which may be involved in vesicle or protein transport.

References

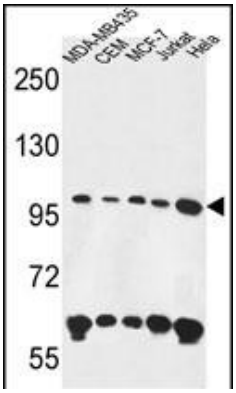
Bouslam, N., et al. Hum. Genet. 121 (3-4), 413-420 (2007)
Schnatwinkel, C., et al. PLoS Biol. 2 (9), E261 (2004)

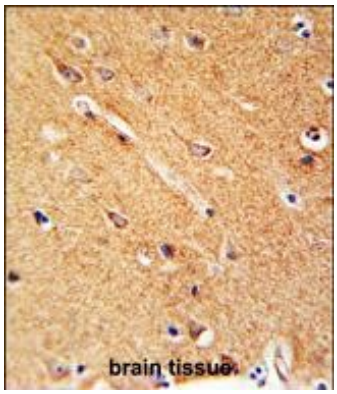
Images



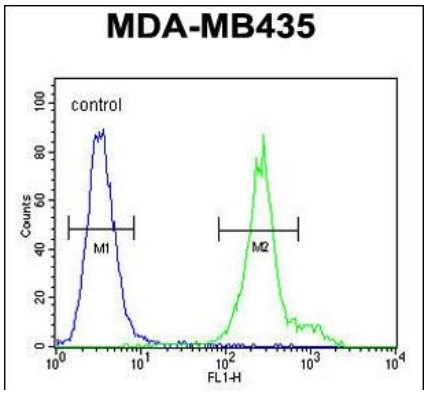
All lanes: Anti-ANKFY1 Antibody (C-term) at 1:2000 dilution Lane 1: CCRF-CEM whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: 293T whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 128 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

ANKFY1 Antibody (C-term) (Cat. #AP4704b) western blot analysis in MDA-MB435,CEM,MCF-7,Jurkat,Hela cell line lysates (35ug/lane).This demonstrates the ANKFY1 antibody detected the ANKFY1 protein (arrow).





ANKFY1 Antibody (C-term) (Cat. #AP4704b) 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 the ANKFY1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



ANKFY1 Antibody (C-term) (Cat. #AP4704b) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Rapid degradation of progressive ankylosis protein (ANKH) in craniometaphyseal dysplasia.
- Cellular uptake of extracellular vesicles is mediated by clathrin-independent endocytosis and macropinocytosis.

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