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DEPD5 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12010B

Product Information

Application	WB, FC, E
Primary Accession	O75140
Other Accession	P61460, NP_001007189.1
Reactivity	Human, Rat, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31640
Calculated MW	181264
Antigen Region	1404-1432

Additional Information

Gene ID	9681
Other Names	DEP domain-containing protein 5, DEPDC5, KIAA0645
Target/Specificity	This DEPD5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1404-1432 amino acids of human DEPD5.
Dilution	WB~~1:1000 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	DEPD5 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DEPDC5 {ECO:0000303|PubMed:23542697, ECO:0000312|HGNC:HGNC:18423}
Function	As a component of the GATOR1 complex functions as an inhibitor of the amino acid-sensing branch of the mTORC1 pathway (PubMed:23723238,

PubMed:25457612, PubMed:29590090, PubMed:29769719, PubMed:31548394, PubMed:35338845). In response to amino acid depletion, the GATOR1 complex has GTPase activating protein (GAP) activity and strongly increases GTP hydrolysis by RagA/RRAGA (or RagB/RRAGB) within heterodimeric Rag complexes, thereby turning them into their inactive GDP-bound form, releasing mTORC1 from lysosomal surface and inhibiting mTORC1 signaling (PubMed:23723238, PubMed:25457612, PubMed:29590090, PubMed:29769719, PubMed:35338845). In the presence of abundant amino acids, the GATOR1 complex is negatively regulated by GATOR2, the other GATOR subcomplex, in this amino acid-sensing branch of the TORC1 pathway (PubMed:23723238, PubMed:25457612, PubMed:29769719). Within the GATOR1 complex, DEPDC5 mediates direct interaction with the nucleotide- binding pocket of small GTPases Rag (RagA/RRAGA, RagB/RRAGB, RagC/RRAGC and/or RagD/RRAGD) and coordinates their nucleotide loading states by promoting RagA/RRAGA or RagB/RRAGB into their GDP-binding state and RagC/RRAGC or RagD/RRAGD into their GTP-binding state (PubMed:29590090, PubMed:35338845). However, it does not execute the GAP activity, which is mediated by NPRL2 (PubMed:29590090).

Cellular Location

Lysosome membrane. Cytoplasm, cytosol {ECO:0000250|UniProtKB:P61460}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P61460}. Note=Localization to lysosomes is mediated by the KICSTOR complex and is amino acid- independent.

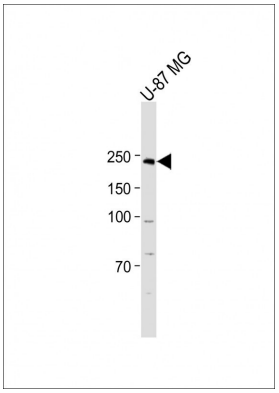
Tissue Location

Expressed in developing and adult brain.

References

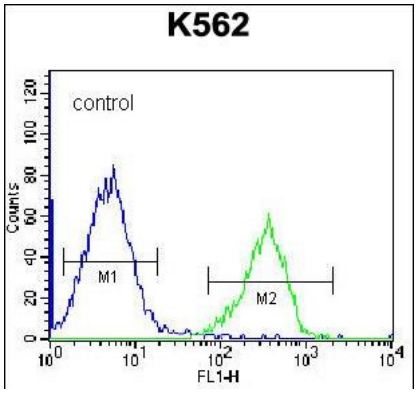
Seng, T.J., et al. Genes Chromosomes Cancer 43(2):181-193(2005)
Dunham, I., et al. Nature 402(6761):489-495(1999)

Images



All lanes : Anti-DEPD5 Antibody (C-term) at 1:500 dilution + U-87 MG cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 180 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

DEPD5 Antibody (C-term) (Cat. #AP12010b) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- TSC1 and DEPDC5 regulate HIV-1 latency through the mTOR signaling pathway.