

LMBRD1 Antibody

Catalog # ASC11233

Specification

LMBRD1 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes

WB, IHC-P, IF, E <u>O9NUN5</u> <u>NP_060838</u>, <u>261878497</u> Human, Mouse, Rat Rabbit Polyclonal IgG LMBRD1 antibody can be used for detection of LMBRD1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

LMBRD1 Antibody - Additional Information

Gene ID Target/Specificity LMBRD1;

Reconstitution & Storage

LMBRD1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

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Precautions

LMBRD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

LMBRD1 Antibody - Protein Information

Name LMBRD1 (HGNC:23038)

Synonyms C6orf209, NESI

Function

Lysosomal membrane chaperone required to export cobalamin (vitamin B12) from the lysosome to the cytosol, allowing its conversion to cofactors (PubMed:19136951). Targets ABCD4 transporter from the endoplasmic reticulum to the lysosome (PubMed:27456980). Then forms a complex with lysosomal ABCD4 and cytoplasmic MMACHC to transport cobalamin across the lysosomal membrane (PubMed:25535791" target="_blank">25535791). Acts as an adapter protein which plays an important role in



mediating and regulating the internalization of the insulin receptor (INSR) (By similarity). Involved in clathrin-mediated endocytosis of INSR via its interaction with adapter protein complex 2 (By similarity). Essential for the initiation of gastrulation and early formation of mesoderm structures during embryogenesis (By similarity).

Cellular Location

Endoplasmic reticulum membrane. Lysosome membrane; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:Q8K0B2}; Multi-pass membrane protein. Cytoplasmic vesicle, clathrin-coated vesicle {ECO:0000250|UniProtKB:Q8K0B2}

Tissue Location Isoform 3 is expressed in liver.

LMBRD1 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 Cytomety
- <u>Cell Culture</u>

LMBRD1 Antibody - Images



Western blot analysis of LMBRD1 in human brain tissue lysate with LMBRD1 antibody at 1 µg/mL.



Immunohistochemistry of LMBRD1 in human brain tissue with LMBRD1 antibody at 2.5 µg/mL.



Immunofluorescence of LMBRD1 in human brain tissue with LMBRD1 antibody at 20 µg/mL.

LMBRD1 Antibody - Background

LMBRD1 Antibody: LMBRD1, also known as NESI (nuclear export signal-interacting protein, is a lysosomal membrane protein that is thought be involved in the transport and metabolism of cobalamin. LMBRD1 was initially identified as interacting with the large form of the hepatitis delta antigen and may be required for the nucleocytoplasmic shuttling of the hepatitis delta virus. Mutations in this gene are associated with the vitamin B12 metabolism disorder termed, homocystinuria-megaloblastic anemia complementation type F (cblF).

LMBRD1 Antibody - References

Gailus S, Hohne W, Gasnier B, et al. Insights into lysosomal cobalamin trafficking: lessons learned from cblF disease. J. Mol. Med.2010; 88:459-66. Wang Y-S, Chang SC, Huang C, et al. Novel nuclear export signal-interacting protein, NESI, critical for the assembly of hepatitis delta virus. J. Virol.2005; 79:8113-20.