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Unc93b Antibody

Catalog # ASC10674

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9H1C4
Other Accession	AAH33623, 116284350
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	66631
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Unc93b antibody can be used for the detection of Unc93b by Western blot at 0.5 - 1 □g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 □g/mL. For immunofluorescence start at 20 □g/mL.

Additional Information

Gene ID	81622
Other Names	Protein unc-93 homolog B1, Unc-93B1, hUNC93B1, UNC93B1, UNC93, UNC93B
Target/Specificity	UNC93B1; Multiple isoforms of Unc93b are known to exist. This antibody will not cross-react with Unc93a.
Reconstitution & Storage	Unc93b antibody can be stored at 4℃ for three months and -20℃, 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.
Precautions	Unc93b Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UNC93B1 (HGNC:13481)
Synonyms	UNC93, UNC93B
Function	Plays an important role in innate and adaptive immunity by regulating nucleotide-sensing Toll-like receptor (TLR) signaling. Required for the transport of a subset of TLRs (including TLR3, TLR7 and TLR9) from the endoplasmic reticulum to endolysosomes where they can engage pathogen nucleotides and activate signaling cascades. May play a role in autoreactive B-cells removal.

Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Endosome Lysosome. Cytoplasmic vesicle, phagosome Note=Relocalizes from endoplasmic reticulum to endosome and lysosome upon cell-stimulation with CpG dinucleotides (By similarity) Colocalizes with LAMP5 in large endosomal intracellular vesicles {ECO:0000250, ECO:0000269|PubMed:18082565, ECO:0000269|PubMed:21642595}
Tissue Location	Expressed in plasmocytoid dendritic cells (at protein level). Highly expressed in antigen-presenting cells. Expressed in heart, and at lower level in kidney. Expressed at low level in other tissues.

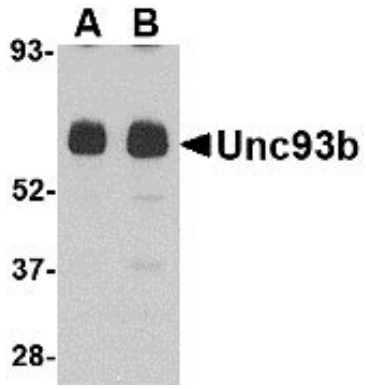
Background

Unc93b Antibody: The endoplasmic reticulum (ER) protein Unc93b, a human homolog of the C. elegans Unc93 gene, was initially identified by a forward genetic screen using N-ethyl-N-nitrosourea where a histidine-to-arginine substitution in Unc93b caused defects in Toll-like receptor (TLR) 3, 7 and 9 signaling. Unlike Unc93a, another homolog of the C. elegans Unc93 gene whose function is unknown, Unc93b specifically interacts with TLR3, 7 and 9; the histidine-to-arginine point mutation used to identify Unc93b abolishes this interaction. Mice carrying this point mutation are highly susceptible to infection with a number of viruses, indicating that Unc93b plays an important role in innate immunity.

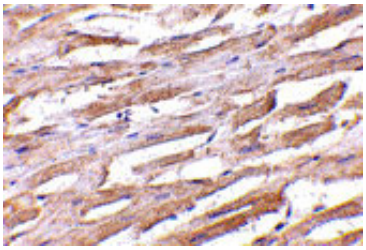
References

Tabeta K, Hoebe K, Janssen EM, et al. The Unc93b1 mutation 3d disrupts exogenous antigen presentation and signaling via Toll-like receptors 3, 7, and 9. Nat. Immunol. 2006; 7:156-64.
Liu Y, Dodds P, Emilion G, et al. The human homolog of unc-93 maps to chromosome 6q27 - characterisation and analysis in sporadic epithelial ovarian cancer. BioMed Central Genetics2002; 3:20.
Brinkmann MM, Spooner E, Hoebe K, et al. The interaction between the ER membrane protein UNC93B and TLR3, 7, and 9 is crucial for TLR signaling. J. Cell Biol. 2007; 177:265-75.

Images

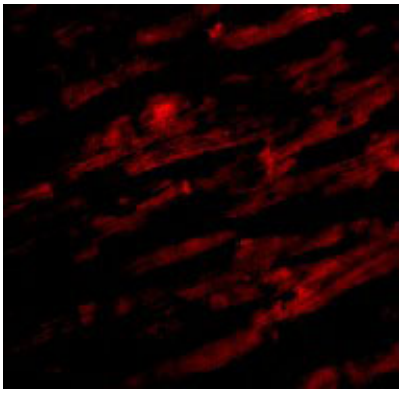


Western blot analysis of Unc93b in human heart tissue lysate with Unc93b antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of Unc93b in human heart with Unc93b antibody at 2.5 µg/mL.

Immunofluorescence of Unc93b in Human Heart cells with Unc93b antibody at 20 µg/mL.



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