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Nephrin (Y1210) antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10417a

Product Information

Application	WB, FC, E
Primary Accession	O60500
Other Accession	NP_004637.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28264
Calculated MW	134742
Antigen Region	1191-1219

Additional Information

Gene ID	4868
Other Names	Nephrin, Renal glomerulus-specific cell adhesion receptor, NPHS1, NPHN
Target/Specificity	This Nephrin antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1191-1219 amino acids from human Nephrin.
Dilution	WB~~1:2000 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	Nephrin (Y1210) antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NPHS1
Synonyms	NPHN
Function	Seems to play a role in the development or function of the kidney glomerular filtration barrier. Regulates glomerular vascular permeability. May

	anchor the podocyte slit diaphragm to the actin cytoskeleton. Plays a role in skeletal muscle formation through regulation of myoblast fusion (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Note=Predominantly located at podocyte slit diaphragm between podocyte foot processes. Also associated with podocyte apical plasma membrane.
Tissue Location	Specifically expressed in podocytes of kidney glomeruli

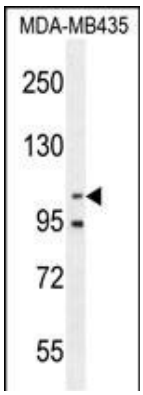
Background

This gene encodes a member of the immunoglobulin family of cell adhesion molecules that functions in the glomerular filtration barrier in the kidney. The gene is primarily expressed in renal tissues, and the protein is a type-1 transmembrane protein found at the slit diaphragm of glomerular podocytes. The slit diaphragm is thought to function as an ultrafilter to exclude albumin and other plasma macromolecules in the formation of urine. Mutations in this gene result in Finnish-type congenital nephrosis 1, characterized by severe proteinuria and loss of the slit diaphragm and foot processes.

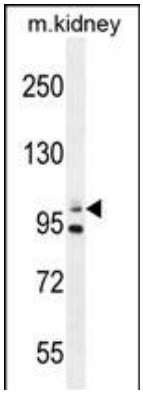
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Wu, F., et al. J. Am. Soc. Nephrol. 21(9):1456-1467(2010)
Tossidou, I., et al. J. Biol. Chem. 285(33):25285-25295(2010)
Machuca, E., et al. J. Am. Soc. Nephrol. 21(7):1209-1217(2010)
Aya, K., et al. Kidney Int. 57(2):401-404(2000)

Images

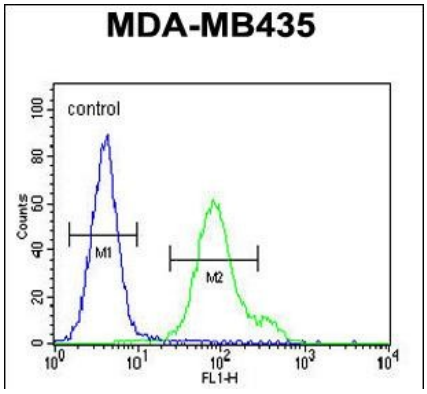


Nephrin (Y1210) antibody (Cat. #AP10417a) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the Nephrin antibody detected the Nephrin protein (arrow).



Nephrin (Y1210) antibody (Cat. #AP10417a) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the Nephrin antibody detected the Nephrin protein (arrow).

Nephrin Antibody (Y1210) (Cat. #AP10417a) 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.