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KIRREL2 Antibody

Catalog # ASC11854

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q6UWL6
Other Accession	NP_954649, 145275174
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	75093
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	KIRREL2 antibody can be used for detection of KIRREL2 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	84063
Other Names	Kin of IRRE-like protein 2, Kin of irregular chiasm-like protein 2, Nephrin-like protein 3, KIRREL2, NEPH3
Target/Specificity	KIRREL2; KIRREL2 antibody is human, mouse and rat reactive. At least five isoforms are are known to exist. This antibody is predicted to not cross-react with other members of the KIRREL protein family.
Reconstitution & Storage	KIRREL2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	KIRREL2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KIRREL2
Synonyms	NEPH3
Function	May regulate basal insulin secretion.
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q7TSU7}; Single-pass type I membrane protein. Note=Localized along the sites of the cell contacts. Colocalizes with E-Cadherin and beta- catenin. {ECO:0000250|UniProtKB:Q7TSU7}

Tissue Location	Highly expressed in beta-cells of the pancreatic islets.

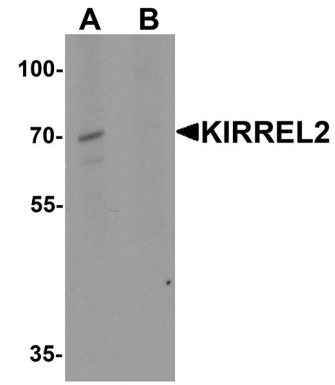
Background

KIRREL2, also known as nephrin-like 3, is a type I transmembrane protein belonging to the immunoglobulin superfamily of cell adhesion molecules (1). KIRREL2 consists of five extracellular Ig-like repeats, a transmembrane domain, several glycosylation sites and a cytoplasmic domain that has a stretch of nine conserved residues (1,2). KIRREL2 has been found to be expressed in beta cells of pancreatic islets and is involved in the regulation of both glomerular and neural development (3,4). Downregulation of KIRREL2 is implicated in several proteinuric diseases (4,5).

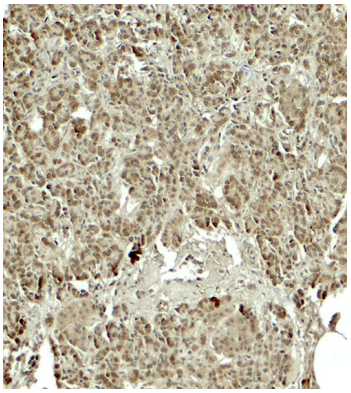
References

Sun C, Kilburn D, Lukashin A, et al. KIRREL2, a novel immunoglobulin superfamily gene expressed primarily in beta cells of the pancreatic islets. Genomics 2003; 82:130-42.
Heikkila E, Ristola M, Havana M, et al. Trans-interaction of nephrin and Neph1/Neph3 induces cell adhesion that associates with decreased tyrosine phosphorylation of nephrin. Biochem. J. 2011; 435:619-28.
Wang H, Lehtonen S, Chen YC, et al. Neph3 associates with regulation of glomerular and neural development in zebrafish. Differentiation 2012; 83:38-46.
Mizuhara E, Minaki Y, Nakatani T, et al. Purkinje cells originate from cerebellar ventricular zone progenitors positive for Neph3 and E-cadherin. Dev. Biol. 2010; 338:202-14.

Images

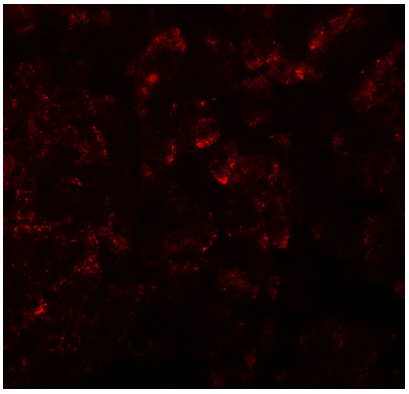


Western blot analysis of KIRREL2 in 293 cell lysate with KIRREL2 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of KIRREL2 in human pancreas tissue with KIRREL2 antibody at 5 µg/ml.

Immunofluorescence of KIRREL2 in human pancreas tissue with KIRREL2 antibody at 20 µg/ml.



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