

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Nephrin in direct ELISAs and Western blots. In direct ELISAs, less than 20% cross-reactivity with recombinant mouse Nephrin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Nephrin Gln23-Thr1029 Accession # O60500
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Nephrin, also known as renal glomerulus-specific cell adhesion receptor and nephrosis 1 (NPHS1) is a 185-200 kDa type I transmembrane protein belonging to the immunoglobulin (Ig) superfamily. It is expressed on podocytes and is an essential component of the interpodocyte-spanning slit diaphragm complex. Nephrin forms cis-hetero-oligomeric complexes with Neph1, followed by trans-homophilic interaction with Nephrin on opposing cells. Mutations in the Nephrin gene is the pathogenic cause of congenital nephrotic syndrome. Mature human Nephrin contains a 1033 aa extracellular region and a 165 aa cytoplasmic tail. One potential soluble splice form is known where aa's 1056-1095 are deleted, eliminating the transmembrane region. Over aa 23-1029, human Nephrin shares 84% and 89% aa sequence identity with mouse and canine Nephrin, respectively.

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