

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Nephronectin in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Nephronectin Asp20-Cys561 Accession # AAH68308
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.

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

Nephronectin, also named POEM (preosteoblast EGF repeat protein with MAM domain) is a 70-90 kDa extracellular matrix protein that is a ligand for integrin $\alpha\beta_1$ (1, 2). The 561 amino acid (aa) mouse Nephronectin (isoform b) contains a 19 aa signal sequence, a matrilin-type vWA domain, two calcium-binding EGF-like domains, a potential N-linked glycosylation site, a pro/ser/thr-rich mucin-like region, an RGD integrin binding motif, and a MAM domain. These features are often present in matrix proteins that, like Nephronectin, mediate cell adhesion and spreading (1, 2). Isoform a includes a 17 aa insertion between aa 58 and 59 that is missing in isoform b. Mouse Nephronectin shows 88%, 92%, 85% and 77% aa identity with human, rat, bovine and opossum Nephronectin, respectively. It is most highly expressed in developing endocrine organs such as parathyroid, thyroid, hypophysis and pineal organ, and around developing bone, teeth, and muscle (1, 2). Pre-osteoblast cells produce Nephronectin, but down-regulate it as they differentiate (1). It is also expressed in the Wolffian duct and ureteric bud basement membranes in the developing kidney, where it is colocalizes, and forms an in-vivo complex with integrin $\alpha\beta_1$ (2). Since deletion of integrin $\alpha\beta_1$ results in renal agenesis, Nephronectin has been proposed to be a critical integrin $\alpha\beta_1$ ligand during Nephrogenesis (2, 3).

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