ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Filtrin (NLG) Antibodies

Cat. # NLG11-P	**Human** Filtrin control peptide # 1	**SIZE**: 100 ug
Cat # NLG11-A	**Rabbit** Anti-Human Filtrin IgG # 1 (aff pure)	**SIZE**: 100 ug

Nephrin is encoded by NPHS1 gene (chromosome 19q13.1), the core protein of the interpodocytes slit diaphragm of kidney glomerulus, these podocytes are highly differentiated with characteristic interdigitating foot processes covering the outer glomerular basement membrane, the space between these foot processes is spanned by a tight junction to provide the large surface area for filtration.

Filtrin a type I transmembrane protein belonging to immunoglobulin superfamily of cell adhesion molecules, due to its structural similarity and sequence homology with nephrin, it belongs to the functionally important complex of proteins of glomerular filtration barrier.

Filtrin (Human 219aa, 107kD, chrm 19q13.12, gene NLG1) belongs to the functionally important glomerular filtration barrier proteins, Filtrin is a nehrin-like protein expressed in glomeruli, It has structural similarity and partial consistent expression with nephrin, thus shows 30% and 44% homology with nephrin and NEPH1 respectively.

Source of Antigen and Antibodies

Antigen	20-aa peptide from Human Filtrin; **Designation (NLG11-P, control peptide**) epitope location ~ N-terminus
Ab Host/type	Rabbit, Polyclonal Aff pure IgG (**cat # NLG11-A**) purified over antigen-agarose column
2-ab	**Goat Anti-rabbit IgG-HRP** cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	**# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control**

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied 0.05% azide, **Reconstitute** powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1-10 ug/ml for affinity pure antibody using ECL technique). See published refs 2.

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: We recommend the use of aff pure IgG at 2-20 ug/ml. See published refs 2.

Specificity & Cross-reactivity

The Human NLG11 control peptide is 90% conserved in mouse. No significant sequence homology is seen with other related family members Antibody cross-reactivity in various species has not been studied. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol see detailed protocol at the web site).

General References: Duesterhoeft, A et al (2002) MIPS, Am Klopferspitz 18a, Martinsried, Germany (Direct submission).

Citation of ADI's Antibodies for Filtrin:
Pekka Ihalmo et al (2003) Biochem. Biophysics. Res. Comm. 300 (2), 364-370.

Holland AM 2005 Diabetes, Sep 2005; 54: 2586 - 2595 IHC mouse pancreas
*This product is for In vitro research use only.

Related material available from ADI

Antibodies & Peptides: Nephrin related proteins (NEPH 1-3, Podocin, Podocalyxin).

NLG 11-A-P 71212A

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