ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Merlin2 Antibodies

Cat. # MERL21-P	Mouse Merlin2 control peptide # 1	**SIZE**: 100 ug
Cat. # MERL21-A	**Rabbit** Anti-Mouse Merlin2 IgG # 1 (aff pure)	**SIZE**: 100 ug

Na+/ H+ exchanger regulatory factor (**NHERF1**) is a PDZ domain containing adaptor protein known to bind to various receptors, channels, cytoskeletal elements and cytoplasmic signaling proteins. A 358aa mainly expressed in kidney, liver and pancrease by NHERF gene (chrm 17). And is represented in another isoform, NHERF2.
NHERF1 protein contains 2 tandem PDZ domains of approximately 90aa and a C-terminal sequence that binds several members of the ERM (ezrin-radixin-moesin) family of membrane cytoskeletal adapters. The protein plays an important role in regulation of NHE3, turnover of G-protein coupled receptors, platelet derived growth factor receptor and ion transporters such as CFTR, Na/Pi cotransporter, NaHCO3 cotransporter and Trp channels.

Merlin, Isoforms 1 and 2 are predominant, isoforms 4, 5 and 6 are expressed moderately, and isoform 8 is found at low frequency. Isoforms 7, 9 and 10 are not expressed in adult tissues, isoforms 1& 2 are 595aa and 590aa each in human, from same gene locus on chromosome 22q12, with approximate mol. wt of 70kD, they are structurally related to moesin, ezrin and redixin but not functionally. The Merlin isoforms are widely expressed in heart, lungs, skeletal muscle and spleen. Since being a membrane stabilizing protein, defects may lead to neurofibromatosis 2 a genetic disorder characterized by bilateral vestibular schwannomas. Affected individuals generally develop symptoms of eighth-nerve dysfunction in early adulthood, including deafness and balance disorder.

Source of Antigen and Antibodies

Antigen	14-aa peptide from Mouse **Merlin2**; **Designation (MERL21-P, control peptide**) conjugated to KLH, epitope location ~ C-terminus
Ab Host/type	Rabbit, Polyclonal Aff pure IgG (**cat # MERL21-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

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).

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: Not tested. We recommend the use of aff pure IgG at 2-20 ug/ml.

Specificity & Cross-reactivity

The Mouse MERL21-P control peptide is 100% identical in Human merlin2. 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: Joseph L. Kissil et al (2002) JBC, Vol. 277 (12), 10394-10399; Matsui, T. Maeda et al (1998) JBC, Vol. 140, 647-657; BIshop, A. L et al, (2000) Biochem. J. 348, 241-255; Rouleau GA, et al (1993) Nature 363 (6429), 515-521.

*This product is for In vitro research use only.

Related material available from ADI

Antibodies and Peptides: NHERF isoforms, Merlin (Sch) isoforms, and Syntenin.

MERL21-A-P 71212A

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