neprhin (G-8): sc-376522

BACKGROUND

Neprhin is a member of the immunoglobulin family of cell adhesion molecules that localizes to opposing sites of the secondary foot processes formed by podocytes, a specialized epithelial cell that ensures size- and charge-selective ultrafiltration. The human neprhin gene maps to chromosome 19q13.12 and encodes a 1,241 amino acid protein that contains a transmembrane domain, eight Ig-like modules, and one fibronectin III-like module. Neprhin is expressed in embryonic and adult kidneys and localizes to glomerular podocytes and the glomerular slit diaphragm. Neprhin stimulates mitogen-activated protein kinases and is enhanced by podocin, which binds to the cytoplasmic tail of neprhin. A293 cells treated with phorbol-12-myristate-13-acetate can upregulate neprhin, suggesting that protein kinase C is part of an intracellular signalling system, which regulates neprhin.

CHROMOSOMAL LOCATION

Genetic locus: NPHS1 (human) mapping to 19q13.12; Nphs1 (mouse) mapping to 7 B1.

SOURCE

neprhin (G-8) is a mouse monoclonal antibody raised against amino acids 23-322 mapping within an extracellular domain of neprhin of human origin.

PRODUCT

Each vial contains 200 μg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

neprhin (G-8) is available conjugated to agarose (sc-376522 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376522 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376522 PE), fluorescein (sc-376522 FITC), Alexa Fluor® 488 (sc-376522 AF488), Alexa Fluor® 546 (sc-376522 AF546), Alexa Fluor® 594 (sc-376522 AF594) or Alexa Fluor® 647 (sc-376522 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376522 AF680) or Alexa Fluor® 790 (sc-376522 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

neprhin (G-8) is recommended for detection of neprhin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:300-1:3000).

Suitable for use as control antibody for neprhin siRNA (h): sc-36030, neprhin siRNA (m): sc-36031, neprhin shRNA Plasmid (h): sc-36030-SH, neprhin shRNA Plasmid (m): sc-36031-SH, neprhin shRNA (h) Lentiviral Particles: sc-36030-V and neprhin shRNA (m) Lentiviral Particles: sc-36031-V.

Molecular Weight of neprhin: 185 kDa.

Positive Controls: human kidney extract: sc-363764, rat kidney extract: sc-2394 or KNRK whole cell lysate: sc-2214.

STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

neprhin (G-8): sc-376522. Western blot analysis of neprhin expression in human kidney tissue extract.

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures.