**βENaC (D-3): sc-25354**

**Background**

The epithelial sodium channel (ENaC) is a member of the ENaC/DEG superfamily that is located on the apical surface of cells. ENaC mediates sodium reabsorption in kidney, distal colon, lung, ducts of exocrine glands, and other organs. ENaC is formed by heteromultimerization of four homologous subunits, α, β, γ, and δ. The most frequently formed heterotetramer consists of two α, one β, and one γ subunit, but the α subunit can be replaced by a δ subunit. The αENaC gene maps to human chromosome 12p13, and expresses a glycosylated protein. Both the β and γENaC genes map to human chromosome 16p12.2, and the γENaC transcript is detected as a glycosylated protein. The carboxy terminus of all ENaC subunits contains PY motifs, which interact with the ubiquitin protein ligase, Nedd4, to regulate intracellular sodium concentrations. Gain-of-function mutations involving the PY motif cause Liddle’s syndrome, an autosomal dominant form of hypertension, resulting from excess renal sodium absorption. Conversely, ENaC loss-of-function mutations result in pseudohypoaldosteronism type I, a disorder characterized by salt wasting and hypotension.

**References**


**Chromosomal Location**

Genetic locus: SCNN1B (human) mapping to 16p12.2; Scnn1b (mouse) mapping to 7 F2.

**Source**

βENaC (D-3) is a mouse monoclonal antibody raised against amino acids 271-460 of βENaC of human origin.

**Product**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. 

βENaC (D-3) is available conjugated to agarose (sc-25354 AC), 500 µg/0.25 ml agarose in 1 ml for IP; to HRP (sc-25354 HRP), 200 µg/ml for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25354 PE), fluorescein (sc-25354 FITC), Alexa Fluor® 488 (sc-25354 AF488), Alexa Fluor® 594 (sc-25354 AF594) or Alexa Fluor® 647 (sc-25354 AF647), 200 µg/ml for IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25354 AF680) or Alexa Fluor® 790 (sc-25354 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**Research Use**

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

**Applications**

βENaC (D-3) is recommended for detection of βENaC of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for βENaC siRNA (h): sc-42417, βENaC siRNA (m): sc-42418, βENaC shRNA Plasmid (h): sc-42417-SH, βENaC shRNA Plasmid (m): sc-42418-SH, βENaC shRNA (h) Lentiviral Particles: sc-42417-V and βENaC shRNA (m) Lentiviral Particles: sc-42418-V.

**Molecular Weight (predicted) of βENaC: 73 kDa.**

Molecular Weight (observed) of βENaC: 89 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

**Data**

![βENaC (D-3): Western blot analysis of βENaC expression in KNRK whole cell lysate.](image1)

**Select Product Citations**


**Storage**

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

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