SANTA CRUZ BIOTECHNOLOGY, INC.

EPI64 (N-20): sc-18280

BACKGROUND

The Na^+/H^+ exchange protein (NHE) functions in transepithelial Na^+ absorption and is primarily expressed in the intestinal and renal brush border membrane. NHE regulatory factor 1 (NHERF-1) interacts with NHE through two PDZ (for PSD-95, discs-large and ZO-1 homology) domains, which are protein-protein interaction modules that associate with specific C-terminal motifs on target proteins. Also known as EBP50, NHERF-1 facilitates cAMP inhibition of NHE to decrease Na^+ adsorption. NHERF-2, also known as E3KARP, is ubiquitously expressed as a protein which also functions in NHE2 regulation. EBP-PDZ interactor (EPI64) contains a C-terminal-DTYL sequence that binds to the first PDZ domain of NHERF-1 and NHERF-2. EPI64 is ubiquitously expressed and localizes with NHERF-1 *in vitro*. The gene encoding human EPI64 maps to chromosome 22q12.1.

REFERENCES

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3. Poulat, F., de Santa Barbara, P., Desclozeaux, M., Soullier, S., Moniot, B., Bonneaud, N., Boizet, B. and Berta, P. 1997. The human testis determining factor SRY bind a nuclear factor containing PDZ protein interaction domains. J. Biol. Chem. 272: 7167-7172.
4. Reczek, D. and Bretscher, A. 2001. Identification of EPI64, a TBC/rabGAP domain-containing microvillar protein that binds to the first PDZ domain of EBP50 and E3KARP. J. Cell Biol. 153: 191-205.
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6. Hanono, A., Garbett, D., Reczek, D., Chambers, D.N. and Bretscher, A. 2006. EPI64 regulates microvillar subdomains and structure. J. Cell Biol.175: 803-813.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D10A (human) mapping to 22q12.1; Tbc1d10a (mouse) mapping to 11 A1.

SOURCE

EPI64 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of EPI64 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18280 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EPI64 (N-20) is recommended for detection of EPI64 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 1:30-1:3000).

Suitable for use as control antibody for EPI64 siRNA (h): sc-42520, EPI64 siRNA (m): sc-42521, EPI64 shRNA Plasmid (h): sc-42520-SH, EPI64 shRNA Plasmid (m): sc-42521-SH, EPI64 shRNA (h) Lentiviral Particles: sc-42520-V and EPI64 shRNA (m) Lentiviral Particles: sc-42521-V.

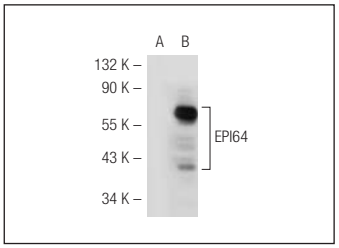
Molecular Weight of EPI64: 56 kDa.

Positive Controls: EPI64 (m3): 293T Lysate: sc-110216 or mouse embryo tissue extract.

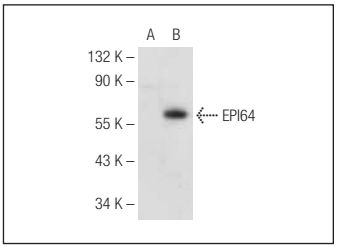
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



EPI64 (N-20): sc-18280. Western blot analysis of EPI64 expression in non-transfected: sc-117752 (**A**) and mouse EPI64 transfected: sc-125304 (**B**) 293T whole cell lysates.



EPI64 (N-20): sc-18280. Western blot analysis of EPI64 expression in non-transfected: sc-117752 (**A**) and mouse EPI64 transfected: sc-110216 (**B**) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.