EPI64 (h3): 293T Lysate: sc-128540



The Power to Question

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 NHE-2 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 22q12.2.

REFERENCES

- Sheng, M. 1996. PDZs and receptor/channel clustering: rounding up the latest suspects. Neuron 17: 575-578.
- Yun, C.H., Oh, S., Zizak, M., Steplock, D., Tsao, S., Tse, C.M., Weinman, E.J. and Donowitz, M. 1997. cAMP-mediated inhibition of the epithelial brush border Na+/H+ exchanger, NHE3, requires an associated regulatory protein. Proc. Natl. Acad. Sci. USA 94: 3010-3015.
- 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.
- 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.
- 5. Itoh, T and Fukuda, M. 2006. Identification of EPI64 as a GTPase-activating protein specific for Rab27A. J. Biol. Chem. 281: 31823-31831.
- 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 22q12.2.

PRODUCT

EPI64 (h3): 293T Lysate represents a lysate of human EPI64 transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

APPLICATIONS

EPI64 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive EPI64 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.

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