SANTA CRUZ BIOTECHNOLOGY, INC.

MREG (h2): 293T Lysate: sc-115293

BACKGROUND

The photoreceptor rod cell that is responsible for vision under conditions of low light consists of stacked arrays of disk membranes that make up its outer segment portion. Regulated by complex biochemical mechanisms, the rod outer segment is under constant renewal as new disks form at the base. MREG (melanoregulin), also known as DSU (dilute suppressor protein homolog) or WDT2, is thought to play a role in membrane fusion and in regulating the biogenesis of disk membranes of photoreceptor rods. MREG interacts with RDS (also known as peripherin-2), a photoreceptor specific tetraspanin protein that is required to maintain normal cell structure during the renewal process of membrane fusion. MREG is 214 amino acids in length, is expressed in photoreceptor cells and and is expressed as two isoforms due to alternative splicing.

REFERENCES

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3. Poetsch, A., Molday, L.L. and Molday, R.S. 2001. The cGMP-gated channel and related glutamic acid-rich proteins interact with Peripherin-2 at the rim region of rod photoreceptor disc membranes. J. Biol. Chem. 276: 48009-48016.
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5. Damek-Poprawa, M., Krouse, J., Gretzula, C. and Boesze-Battaglia, K. 2005. A novel tetraspanin fusion protein, Peripherin-2, requires a region upstream of the fusion domain for activity. J. Biol. Chem. 280: 9217-9224.
6. Boesze-Battaglia, K., Song, H., Sokolov, M., Lillo, C., Pankoski-Walker, L., Gretzula, C., Gallagher, B., Rachel, R.A., Jenkins, N.A., Copeland, N.G., Morris, F., Jacob, J., Yeagle, P., Williams, D.S., et al. 2007. The tetraspanin protein Peripherin-2 forms a complex with melanoregulin, a putative membrane fusion regulator. Biochemistry 46: 1256-1272.
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CHROMOSOMAL LOCATION

Genetic locus: MREG (human) mapping to 2q35.

PRODUCT

MREG (h2): 293T Lysate represents a lysate of human MREG transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

MREG (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive MREG antibodies. Recommended use: 10-20 µl per lane.

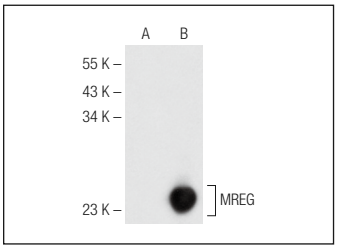
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MREG (E-4): sc-374217 is recommended as a positive control antibody for Western Blot analysis of enhanced human MREG expression in MREG transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

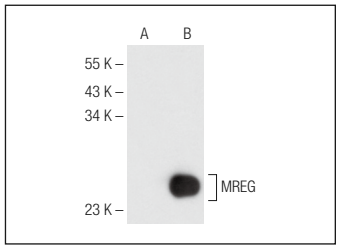
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MREG (E-4): sc-374217. Western blot analysis of MREG expression in non-transfected: sc-117752 (**A**) and human MREG transfected: sc-115293 (**B**) 293T whole cell lysates.



MREG (F-3): sc-374216. Western blot analysis of MREG expression in non-transfected: sc-117752 (**A**) and human MREG transfected: sc-115293 (**B**) 293T whole cell lysates.

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.

PROTOCOLS

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