Raver1 (h): 293T Lysate: sc-115711



The Power to Question

BACKGROUND

Raver1, also known as Ribonucleoprotein PTB-binding 1, is a widely expressed 606 amino acid protein that forms complexes with microfilament-associated proteins such as vinculin, metavinculin and α -Actin at microfilament attachment sites. Localized to either the nucleus or cytoplasm, Raver1 regulates alternative splicing events by associating with hnRNP I. With three RNA recognition motifs (RRM) near the N-terminus, Raver1 is thought to function as a potent splicing co-repressor by promotion of exon skipping. In myocytes, Raver1 has been shown to translocate from the nucleus to the cytoplasm, targeting the costamere. Here, it complexes with microfilament-associated proteins during muscle cell differentiation, which suggests that Raver1 may coordinate RNA targeting and processing as required for microfilament anchoring in adhesion sites. There are three isoforms of Raver1 due to alternative splicing events.

REFERENCES

- 1. Markovtsov, V., et al. 2000. Cooperative assembly of an hnRNP complex induced by a tissue-specific homolog of polypyrimidine tract binding protein. Mol. Cell. Biol. 20: 7463-7479.
- Hüttelmaier, S., et al. 2001. Raver1, a dual compartment protein, is a ligand for PTB/hnRNP I and microfilament attachment proteins. J. Cell Biol. 155: 775-786.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609950. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 4. Gromak, N., et al. 2003. The PTB interacting protein Raver1 regulates α -Tropomyosin alternative splicing. EMBO J. 22: 6356-6364.
- 5. Spellman, R., et al. 2005. Regulation of alternative splicing by PTB and associated factors. Biochem. Soc. Trans. 33: 457-460.
- Kleinhenz, B., et al. 2005. Raver2, a new member of the hnRNP family. FEBS Lett. 579: 4254-4258.
- Rideau, A.P., et al. 2006. A peptide motif in Raver1 mediates splicing repression by interaction with the PTB RRM2 domain. Nat. Struct. Mol. Biol. 13: 839-848.
- 8. Zieseniss, A., et al. 2007. Raver1 is an integral component of muscle contractile elements. Cell Tissue Res. 327: 583-594.
- Romanelli, M.G., et al. 2007. Functional characterization of the ribonucleoprotein, PTB-binding 1/Raver1 promoter region. Gene 405: 79-87.

CHROMOSOMAL LOCATION

Genetic locus: RAVER1 (human) mapping to 19p13.2.

PRODUCT

Raver1 (h): 293T Lysate represents a lysate of human Raver1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Raver1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Raver1 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Furope +00800 4573 8000 49 6221 4503 0 www.scbt.com