SANTA CRUZ BIOTECHNOLOGY, INC.

MYBBP1A siRNA (h): sc-93603

BACKGROUND

MYBBP1A (Myb binding protein (P160) 1a), also known as P160 or PAP2, is a 1,328 amino acid protein that localizes to both the nucleus and the cytoplasm and is thought to shuttle between these two subcellular compartments. Expressed ubiquitously, MYBBP1A interacts with sequence specific DNA binding proteins, such as c-Jun and c-Myb, and, via these interactions, is thought to activate or repress transcription, thereby mediating gene expression. Due to its role in transcriptional regulation, MYBBP1A may be involved in tumor transformation and metastasis. MYBBP1A exists as two alternatively spliced isoforms and shares 80% sequence identity with its mouse counterpart, suggesting a conserved role between species.

REFERENCES

1. Favier, D. and Gonda, T.J. 1994. Detection of proteins that bind to the leucine zipper motif of c-Myb. Oncogene 9: 305-311.
2. Tavner, F.J., et al. 1998. Molecular cloning reveals that the p160 Myb-binding protein is a novel, predominantly nucleolar protein which may play a role in transactivation by Myb. Mol. Cell. Biol. 18: 989-1002.
3. Keough, R., et al. 1999. Molecular cloning and chromosomal mapping of the human homologue of MYB binding protein (P160) 1A (MYBBP1A) to 17p13.3. Genomics 62: 483-489.
4. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604885. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Fan, M., et al. 2004. Suppression of mitochondrial respiration through recruitment of p160 Myb binding protein to PGC-1α: modulation by p38 MAPK. Genes Dev. 18: 278-289.
6. Owen, H.R., et al. 2007. MYBBP1a is a novel repressor of NFκB. J. Mol. Biol. 366: 725-736.
7. Lu, Y., et al. 2008. Multiple genetic variants along candidate pathways influence plasma high-density lipoprotein cholesterol concentrations. J. Lipid Res. 49: 2582-2589.
8. Al-azawi, D., et al. 2008. Ets-2 and p160 proteins collaborate to regulate c-Myc in endocrine resistant breast cancer. Oncogene 27: 3021-3031.

CHROMOSOMAL LOCATION

Genetic locus: MYBBP1A (human) mapping to 17p13.2.

PRODUCT

MYBBP1A siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MYBBP1A shRNA Plasmid (h): sc-93603-SH and MYBBP1A shRNA (h) Lentiviral Particles: sc-93603-V as alternate gene silencing products.

For independent verification of MYBBP1A (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-93603A, sc-93603B and sc-93603C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

MYBBP1A siRNA (h) is recommended for the inhibition of MYBBP1A expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

GENE EXPRESSION MONITORING

MYBBP1A (170C2R): sc-517621 is recommended as a control antibody for monitoring of MYBBP1A gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MYBBP1A gene expression knockdown using RT-PCR Primer: MYBBP1A (h)-PR: sc-93603-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Kang, H. and Shin, J.H. 2015. Repression of rRNA transcription by PARIS contributes to Parkinson's disease. Neurobiol. Dis. 73: 220-228.

RESEARCH USE

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